



A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

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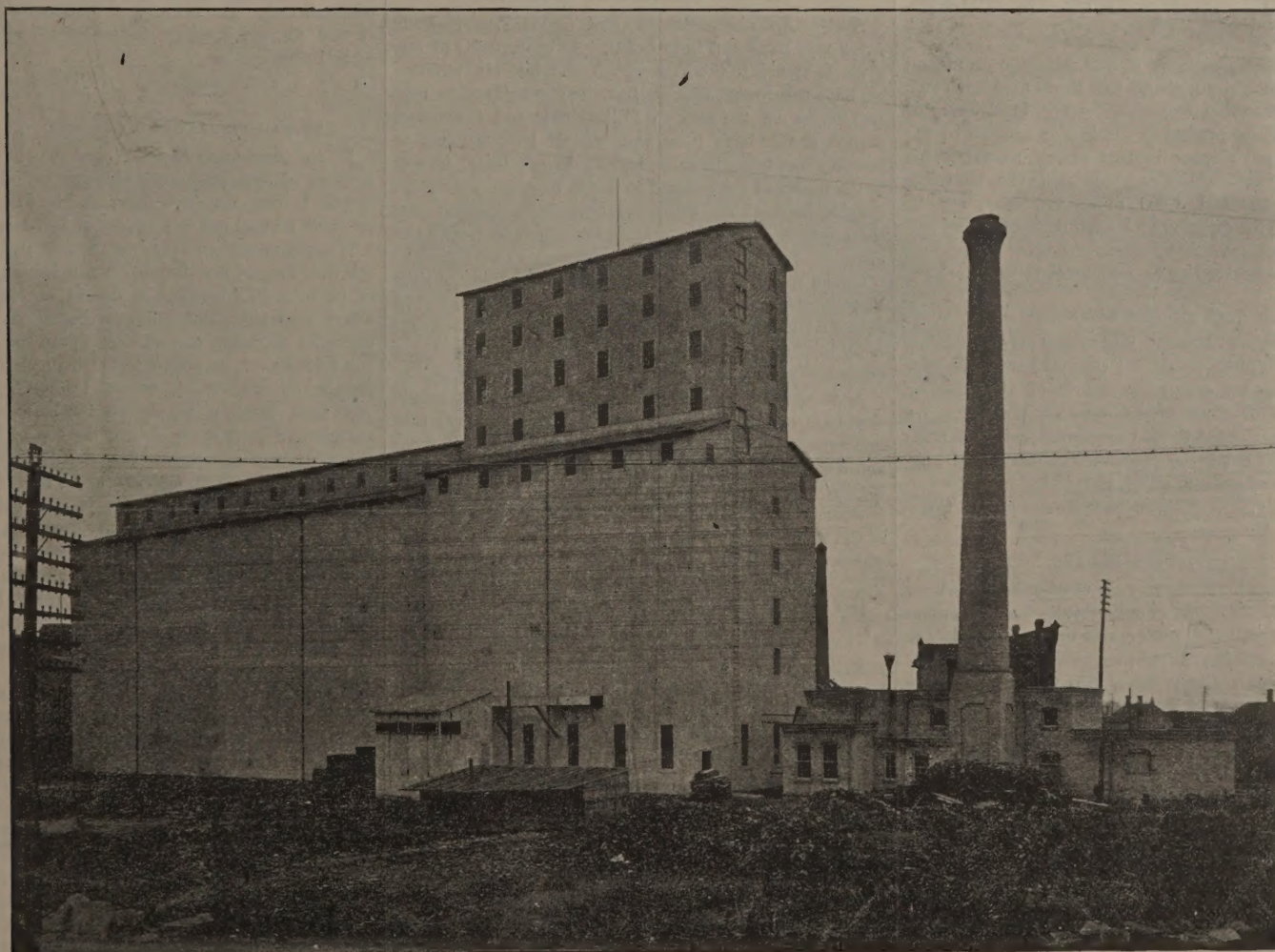
### EMPIRE ELEVATOR COMPANY'S ELEVATOR "C," MINNEAPOLIS.

During the past year Minneapolis has added to her elevator capacity by the construction of several large

elevator proper and an annex. The elevator is 58'x78', cribbed 54' high, with a four story cupola 32'x78'; the annex 50'x144', cribbed 72', with one story cupola for conveyor over bins. The elevator has forty-three storage and six shipping bins, and the annex twenty-four storage

on same and the power transmitted by manila rope to the line of shafting over working floor and to the elevators at top of cupola.

One railway track runs through the house which contains two receiving and two cleaning legs, two sets of



EMPIRE ELEVATOR COMPANY'S ELEVATOR "C," MINNEAPOLIS, MINN.

elevators. Among these is the Empire Elevator Company's new elevator "C," which, if not the largest, certainly is one of the finest and best equipped in the whole Northwest.

It is located on the C., M. & St. P. Railway near the noted milling district and business portion of the city. The accompanying cut shows that it consists of an

bins, the whole having a capacity of 600,000 bushels.

The power house is of fireproof construction and located 20' from elevator. Power is furnished by a 16"x36" Reynolds-Corliss Engine, and the power plant is fitted up in a style to suit this noted make of engine. The main shaft is coupled to engine shaft and extends from engine house into the elevator, where large sheaves are placed

double Clark Grain Shovels, one heavy car puller, two large Monitor Separators and two large Barnard & Leas Separators. Taking the passenger elevator, made by the Crane Manufacturing Company, we easily reach the cupola, where is located a heavy line of shafting, from which the four legs are driven by spur core gearing provided with friction clutches so arranged that either or



all of the legs can be started or stopped at the pleasure of the operator.

The next floor of cupola is mainly occupied by the four 1,000-bushel garners, one over each of the 1,000-bushel hopper scales located on the floor below.

Lever connecting with garner and scale hopper slides are conveniently located for operation by the weigher. Below the scales, and leading to them from the bins, are four of Mayo's Patent Grain Spouts, a late invention, which enables the operator to distribute the grain with less labor, more rapidly and with less liability of error than by any other contrivance known to the builders. This spout is not in any way attached to the scales, but makes a continuous and closed connection from scales to spouts to bins, and leaves the spouting floor clear and clean.

Under this distributing or spouting floor and over bins is the belt conveyor leading to annex, where a tripper discharges the grain into any bin desired. This conveyor can be loaded by any of the four legs, and the grain discharged into any bin in annex, and from these bins the grain is loaded on a conveyor in basement by means of a portable hopper with adjustable opening and unloaded over "tripper" into either of the four legs. Friction clutches are used throughout, so that each separate machine or conveyor can be started or stopped at pleasure. It is also supplied with a complete fire extinguishing outfit, and all the dark places are lighted by electricity, thus making, as will be readily seen, by experienced operators, a very complete and finely equipped elevator plant.

This well-built outfit was put in operation in sixty-two days from time ground was broken for foundation, the time covering the months of November and December of Minnesota weather. It was designed and built by the well-known contractors and builders, the Barnett & Record Company of Minneapolis, Minn.

## DELAY OF SHIPMENTS IN TRANSIT.

We have recently sent out a few letters to prominent grain shippers inquiring about the losses they have suffered on account of unreasonable delay in delivery of grain. We will be pleased to publish an account of the experience of any shipper in this matter, as well as his opinion as to what constitutes a reasonable time for transporting grain 100 and 1,000 miles and what plan he would propose for shippers to secure damages from carriers causing unreasonable delays.

The answers received up to date are as follows:

### TIME BILL OF LADING.

*Editor American Elevator and Grain Trade:*—In reply to your inquiries would say that we have been very seriously delayed through the month of December on about 800 cars for about fifteen days on each car. We think that a car ought to be transported easily 100 miles per day if it has not to be transferred. We would suggest that railroads should give a time bill of lading.

Yours truly,  
WYNDHAM & GATCH GRAIN CO.  
St. Joseph, Mo.

### ANTICIPATED DELAYS.

*Editor American Elevator and Grain Trade:*—Your favor received. There have undoubtedly been very great delays in shipments this winter over the various roads to seaboard; but anticipating this, we made such contracts that we did not suffer personally, but left it with the parties to whom we sold East to look after the shipments. We have assumed no responsibility after the grain was loaded here.

Yours truly,  
GREGG BROS. GRAIN CO.  
St. Joseph, Mo.

### CONGRESS SHOULD ENACT A LAW.

*Editor American Elevator and Grain Trade:*—In regard to unreasonable delay in transit I would say that we have had none to speak of, but we have suffered unreasonable delay in getting cars, and I think there should be some way of holding the railroad companies responsible for damages that occur from such delay, but how or in what way that should be done I do not know. Even if a shipper had good reason to bring suit the railroad company would wear him out with litigation, unless he is so situated financially that he can hold out with them, which only a few are.

There should be a law to compel the railroads to furnish good cars when needed, and they should be held responsible for what is put in them. I think Congress should pass an act to hold the railroad companies re-

sponsible for all damages that result from unreasonable delays, either in furnishing cars or in moving them when loaded. The railroad companies are particular in the time we take to load or unload their cars after we get them, and I think they should take the cars to their destination as soon as possible after loading. I do not know of any remedy nor can I propose any way to secure this result. It seems as if the railroad companies have it mostly their own way.

Respectfully,  
J. S. KLINGENBERG.  
Concordia, Mo.

### RAN AGAINST A BUZZ SAW.

*Editor American Elevator and Grain Trade:*—The loss from delay of grain in transit is inconsiderable compared with the loss to the nation from the dealing in future options. The selling of December future options at say \$1.05 and May at \$1.10, and using the actual wheat to give value to the future option and buying back the option at about \$0.90, has caused a loss of an hundred million dollars; and I have lost my share of this. Why choke at a gnat and swallow a large steam saw mill?

W. P. HOWARD.

St. Louis, Mo.

### SCARCITY OF CARS.

*Editor American Elevator and Grain Trade:*—Replying to your valued favor would say that we have had very little trouble in the delay of shipments. Our roads have been able to make very prompt deliveries. We have had some trouble by the scarcity of cars, owing to the immense cotton crop, that we had, and which all roads give preference over everything else. A great deal of our grain goes to Southeastern states and considering the distance, roads have made very prompt deliveries.

Your truly,  
SHERMAN, TEX.  
PITTMAN & HARRISON.

### HASTENS DELIVERY BY TRACERS.

*Editor American Elevator and Grain Trade:*—Your favor is at hand and fully noted. As to the delay of our grain in transit to the East within the last six months, we have this to say, that we have had considerable that was longer on the way to Philadelphia and Cincinnati than it should have been, and was an inconvenience or possibly loss to us thereby, but we do not think it was in the power of the railroad to put it through promptly, considering the large volume of grain being shipped, and therefore we have made no complaint to them or any one else.

Our usual plan when cars are held beyond the time they should be at destination is to start tracers, and in nearly all cases this accomplishes the desired end. We cannot think now of any plan whereby this delay will not occur when large movement of freight is being made.

As to the maximum days that we consider a reasonable time to transport shipments 100 miles, we should say that this depends on the way freight trains run; that is, if we had a car of grain ready to go in the morning, and the regular freight that it should go by should pass the station at noon, we would not consider it unusual or much out of the way for that car to stand until the next day at noon, and be at destination, 100 miles, the following forenoon.

Yours truly,  
MCFARLIN GRAIN CO.  
Des Moines, Ia.

### CONCERTED ACTION OF SHIPPERS.

*Editor American Elevator and Grain Trade:*—Your favor at hand and in reply I would say that we had 500 or 600 cars corn which were delayed in transit during December and January of this crop year, but as most of it was sold to be shipped within a specified time and we were not responsible for time of delivery, it put the loss upon the parties who purchased it for export, with a few exceptions. We think most of these cars were delayed thirty or forty days. I would consider 24 hours a maximum time for goods to be transported 100 miles or for goods going 1,000 miles about five days. I do not see how it could have been avoided by the railroad people under the circumstances, but the railroads should stand the loss instead of shippers. I think the delays were caused by railroads not having proper facilities for handling such an enormous rush of business as they were trying to move at the time. If shippers would take concerted action upon it the railroad people could be compelled to deliver goods within a reasonable time or make good the losses in case they do not do so. If we pay the railroads excessive demurrage charges for holding their cars on track in the markets in order to make sales of grain at times, why on earth can't they be made to pay

us damages for delays on their part in delivering our grain? The Inter-State Commerce Bill does not seem to touch on this subject, but I think it should do so by all means.

Yours respectfully,  
E. R. ULRICH, JR.  
Springfield, Mo.

### WOULD HAVE FORTY EXCUSES.

*Editor American Elevator and Grain Trade:*—So far we cannot make any great complaint as to loss through poor car service or delays in transit this winter, for the reason that we sold almost all of our grain f. o. b. here and not delivered. We missed the sale of three cars probably this winter on account of the railway company failing to supply us with the line cars we needed.

However, it is yet too early for us to cry that we are out of the woods, because we have some twenty-three cars bound for New York and Buffalo yet to hear from, some of which were shipped as long ago as the latter part of November and December, but we think they were transferred either at Toledo or Detroit into other cars, and these changed car numbers take a long time to be straightened out. In an ordinary way we think forty-eight hours ample time to get a car hauled 100 miles. This would allow for a transfer at junction points.

We cannot suggest any way in which a shipper could secure damages from carriers causing unreasonable delay. The railway company would have forty excuses, and all of them plausible ones. Our main trouble here on this section of the Wabash road is that when Western business is good the company rushes all the empties out West into Kansas or Nebraska to fight for some of the through trade, and knowing that it has us by the heels, the company makes us wait until it can get some line cars homeward bound, after having been unloaded in East St. Louis. Of course by laying a complaint with the Railroad and Warehouse Commission at Springfield we can always get cars; but it does not pay to fight your own railroad. The railroads undoubtedly have the power, and do not hesitate to put on the screws in a case of self-preservation.

Yours truly,  
"ILLINOIS SHIPPER."

### SHOULD BE ALLOWED CHARGES FOR DELAY.

*Editor American Elevator and Grain Trade:*—The question of damage to grain shippers caused by delay in transit is one that well deserves the attention of your valuable journal and is a source of loss to every shipper.

It ought not to require more than fifty hours from the schedule hour of first freight train to leave after a carload of grain is billed before it should be 500 miles from where it started. This implies continuous movement at ten miles an hour, a very slow speed for freight trains. But it frequently happens that loaded cars are allowed to remain on side track where loaded for three days and then after it is started for market it is set out for any and every cause, being the last to be picked up. It is no unusual occurrence for grain from Western Iowa, 400 to 450 miles from Chicago, to be eight to ten days in reaching that market. Shipments from here to Cincinnati ordinarily take about twenty days. A week ought to be sufficient time. Shipments of corn made from here December 28 for January delivery at Baltimore failed to arrive at Baltimore until after February 1, and made a loss to shipper of 4 cents per bushel. Shipments to Boston December 26 arrived there February 1; again, to same place on December 28, a shipment arrived February 16, fifty days after billing, showing a speed of about one and one-fourth miles per hour, or thirty miles per day.

As to the remedy for these unreasonable delays, that is another question. A grain shipper has few rights that are worthy of consideration by the railways. The car service association will see that you pay for the use of the car after it arrives at destination, or if you take more than their stated time in loading it; and it certainly seems as if it is high time that shippers were guaranteed a certain delivery within a reasonable schedule time under penalties of not less than an amount per day equal to car service excise. While this would rarely cover the shipper's actual loss or damage, it would certainly be something in that direction. A law of this kind, or something similar, should be enacted for failure to furnish cars within reasonable time.

In this part of Iowa the shippers' profits have been paid out largely to insurance companies, and for other expenses during the past fall and winter, while waiting for cars in which to ship their grain, the markets meanwhile constantly declining more rapidly than any reasonable "car waiting service" charges would make good.



During the "car famine" a railway general manager wrote me that he "was sure that we would be fully justified by" holding our grain until they could furnish us cars, etc. When the cars came, corn had declined 8 cents per bushel, oats 4 cents, and so on. Now, where are we to get the justification? It must be "by faith," and he had more of it than I.

Sincerely yours,  
F. D. BABCOCK,  
Secretary and Treasurer Grain Shippers' Association of  
Northwest Iowa.  
Ida Grove, Ia.

#### SPECIAL ROUTING TO BLAME.

*Editor American Elevator and Grain Trade:*—We have suffered loss in many ways on account of delay of grain in transit, but at this writing it is hard to tell anything near the exact amount. We have no assurance of knowing when we will hear from grain when started for the seaboard. The roads bill subject to delay, elevator charges, etc., and in many instances it goes into the elevators at terminal points, the shipper having to pay the storage and on account of grain going to store, the parties at the seaboard to whom we sell, turn down drafts and refuse to take the corn on contracts, thus leaving the grain on our hands at lower prices than we sold and have to make disposition of it as best we can.

We shipped corn in December to Baltimore that was in the elevators in Peoria ten days ago. There has been no end to the trouble, delay and expense during the recent freight blockade. The trouble occurs on special routing. When grain can be sold to go any route that will reach the seaboard, we would have but little trouble, if the railroads would stop cutting rates by the way of certain routes and let the grain go over any line to the seaboard that can make the delivery, we would not hear so much about freight blockades.

We are forced to bill as the parties to whom we sell direct; if not, they charge us five cents per hundred for misrouting while the regular tariff shows the same rate to the seaboard by the way of all routes.

We had some grain to go via Washington Heights to Baltimore. Should have gone via Peoria and Continental Line. The parties charged five cents per hundred on account of the billing. If the grain could go in natural channels and not try to crowd five thousand cars through one point at a given time, when one thousand is all that could be handled to an advantage, the blockades would practically be done away with.

Very respectfully,

J. B. CHRISTIAN & Co.

Omaha, Neb.

#### PREPARATION OF RICE.

The milling of rice, briefly stated, embraces the following processes:

1. The "screening," or second threshing, gives the rough rice or "paddy," designed to remove trash, stalks and foreign particles.
2. The removal of the outer husk by the "milling stones."
3. The separation of the chaff and other substances by the "screen blower" and "chaff fan."
4. The removal of the yellow cuticle of the grain by pestling in mortars, which is the most laborious and expensive of the several processes.
5. The separation of the rice bran from the rice grain by sifting, and the separation of the small and large grain of rice by the "brush screen."
6. Polishing, which is accomplished by a horizontal revolving drum covered with leather and surmounted by a cylinder of wire gauze.

The friction by the constant rubbing of the grains of rice against each other and against the drum produces the "rice polish," otherwise called rice dust or rice flour, which is not rice bran but a part of the grain itself worn by attrition.

A syndicate has been formed for the purpose of breaking up a large tract of land in Montana (21,000 acres), the greater portion of which will be devoted to flaxseed.

#### DEATH OF A. J. SAWYER.

In the death of Andrew J. Sawyer of Minneapolis on the morning of March 3, at his home in that city, the grain trade not only of the Northwest but of America lost one of its most prominent members and staunchest champions.

He had only been home from Washington about a week, where he had been waging a gallant struggle against the passage of the option bill, which he has from the very start maintained would be dangerous to the grain interests of the whole Northwest. The effort cost him his life. Mr. Sawyer arrived home from Washington tired out, weary in body and mind, and his nerves shattered. He had gone through a terrible struggle and worked at tremendous pressure. He did some little work in his office on the day of his arrival, gave the latest news from the front to some of the newspaper men and then went home and never left it.

His death occasioned general and very profound sorrow among all the circles of business men and citizens who knew him. Especially was this so on the Chamber

eloquently for his business sagacity and executive ability. He had a tremendous capacity for hard work, and the financial results were commensurate. He leaves a fortune estimated at not less than a million. Besides his grain business he was interested in stock raising. He has several farms and has made a specialty of fine horses, of which he had a good many.

Andrew J. Sawyer was born at Gasport, N. Y., in 1835, and was therefore fifty-seven years of age. He was brought up on a farm and given what at that time was considered a fair education. After leaving his father's farm he taught school for a time and then went into the live stock business, making a specialty of the handling of horses. He came West in 1870 and located in Duluth. He there entered the grocery business, the firm name being Sawyer & Davis. A few years later he branched out in the grain business in a small way and in 1876 or 1877 gave up his other business to turn his whole attention to his grain interests. His career since then has been written in the annals of Duluth and Minneapolis.

He leaves a wife and one son, B. J. Sawyer, who manages his father's stock farm at Villard. He attended the Church of the Redeemer and was a prominent Mason.

The Minneapolis Chamber of Commerce, of which he was a director, adjourned on the day of his funeral and attended the funeral in a body. The memorial adopted by the Minneapolis Chamber of Commerce is as follows:

The members of the Chamber of Commerce of the city of Minneapolis, whereof A. J. Sawyer was a most prominent member, desire to express (as nearly as they can find words to do so) their deep regret at his sad and untimely death, and their sympathy to his family in their irreparable loss. Words are not adequate to declare our sorrow. To every member of this exchange Mr. Sawyer was a friend, and in his death we realize that we have sustained a loss which, to us, can never be repaired. A vacancy is left in our membership which can never be filled. To none better than to his business associates are known his many sterling qualities, his manly life and his nobility of character. An enthusiastic warrior where he saw injustice or wrong, but generous and tender in triumph of prosperity, his life was finally given in a struggle to sustain a principle which he deemed worthy of his best endeavors. The hearts of his associates are touched too deeply for words of formal resolution or regret. We can only say, we knew him as a noble man, whom we all loved and whose death is a personal loss to each of us.

Resolved, therefore, That upon the day of his funeral, the Chamber be closed at noon out of respect to his memory, and that arrangements be made for the members to attend in a body;

That this report and resolution be spread upon our records, and that the secretary be instructed to send a copy to the family.

Many members of the Duluth Board of Trade attended the funeral, and the Board adopted the following resolutions:

WHEREAS, It has pleased providence to remove Andrew J. Sawyer, one of the founders and first president of this Board.

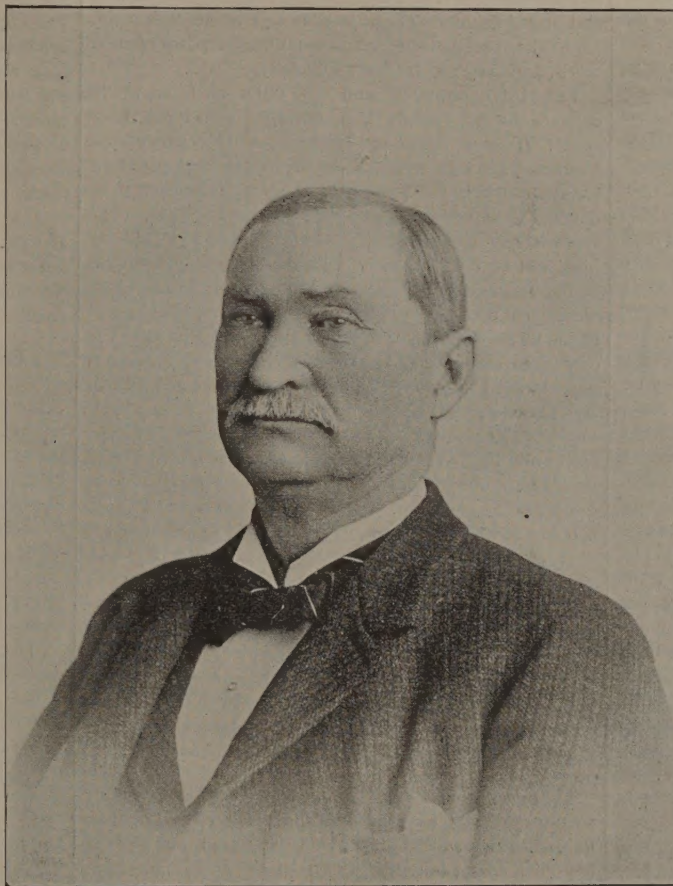
Resolved, That we recognize that in his death this Board has lost one who inspired universal confidence in his integrity, ability and courage, and that we, as individual members, will long miss and mourn a true personal friend and a warm-hearted helper;

Resolved, That our room be draped in mourning for two weeks, and that these resolutions be entered on our minutes, and that a copy be engrossed and sent to the bereaved family.

The large business interests of Mr. Sawyer will continue for a time under the management in charge at his death. The Duluth and Superior interests will be in the hands of John Macleod of Duluth, Mr. Sawyer's partner, and the Minneapolis business will be in charge of Frank Pettit, who acted as Mr. Sawyer's local manager before his death.

An extra issue of the *Commercial* of Winnipeg was published recently in which much space was devoted to the resources of Canada. It was, indeed, a very creditable issue of an excellent publication which is always conservative and sticks to the truth.

It is not likely that a great area of flax will be planted this year, particularly in Kansas. Last year's crop was not a great success, averaging 7.2 bushels, against 10 bushels in Iowa and 9.6 bushels in Minnesota. The failure of many winter wheat fields may lead to some flax seedling which would not otherwise have been done, but the acreage is not likely to equal last year's. Nor is the flax area in the Northwest likely to be as large as last year. The wheat crop of 1891 paid so much better than the flax crop that any extension of cultivated area is likely to be put to wheat.—*Kansas City Trade Review*.



A. J. SAWYER.

of Commerce, where he was universally esteemed and respected. Mr. Sawyer had been a member of the Minneapolis Chamber of Commerce only about five years, but in that time he had put himself at the head and front of the trade. He was their acknowledged champion and leader, an honor accorded him from being the largest grain dealer on the board as well as for his peculiar fitness for leadership. In all things involving the interests of the board and the general welfare of the business his counsel was always sought. The Northwest had no worthier champion on the board than he. Mr. Sawyer was a man of remarkable business qualifications. Personally he was a powerfully built man, full six feet tall, with closely cropped white hair and clipped mustache, with keen, gray eyes and a quick, energetic way of moving about and talking that proclaimed him a Western business man of push and energy.

He was probably the most extensive grain dealer in the Northwest. He was president of the Northern Dakota Elevator Company, with headquarters at Minneapolis; also of the Duluth Elevator Company, which has its elevators at West Superior and offices at Duluth, and the senior member of the commission house of A. J. Sawyer & Co., which has offices in both Minneapolis and Duluth. Each is an enormous business in itself, and the fact that Mr. Sawyer could so successfully manage all three speaks



## INTERNAL ARRANGEMENT OF SMALL ELEVATORS.

BY R. JAMES ABERNATHEY.

Apropos to the preceding article on elevator building some remarks as to the internal arrangement would seem in order. It has been the practice of the writer, as a general thing to make the basement complete, although it is not always necessary. A complete basement costs rather more than a partial one, but is far more convenient, and, on the whole, will undoubtedly pay better in the end. What is meant by a complete basement is one that is sunk to the average depth required and well walled in and provided with windows to admit light and air.

As a rule the main basement does not require to be over six feet in depth below the surface of the ground, depending somewhat, of course, on the lay of the ground. However, to make this statement more reliable it can be said that six feet below track level may be regarded as a fair general average, although there are some locations where the embankment runs very high, when track level and basement level may be about the same unless the intention be to receive grain from cars standing on the track. If so, as will be readily understood, there will have to be depth enough to allow a free and easy passage from car to boot of elevator. If the boot can be located close to the track less depth will be required; if not, then more depth to increase fall will have to be secured. It is true that the required depth cannot always be obtained, owing to water or other obstructions. When such obstacles come in the way then short conveyors can be used to good advantage. These should run from boot through wall and partly under the track or up to it on a level with it as the case may be or as circumstances will permit. The grain can then be dropped from car directly into conveyor and thence carried to boot of elevator. The only objection to the use of conveyors in all such cases is the necessary partial complication of the machinery arrangement, as the writer likes to have all lines of shafting running parallel with the track, while the proposed conveyor would, of course, run at right angles, which makes it less convenient to drive. Sometimes, though, small elevators are so arranged as to have all lines of shafting run at right angles with the track, which makes the conveyor attachments come in very conveniently.

But as to the basement proper again. If it is made complete and well walled, as proposed, it then becomes an easy matter to arrange whatever it may contain and give it such attention as it should have. Nor need any part of it be useless or wasted space when space is needed, because if dry it can be utilized for temporarily storing grain or anything else. Rough, temporary bins can be constructed into which wheat, corn or anything else can be easily placed by spouting, but of course more work will be required to get it out, but no more than in a flat-floor warehouse. It can be run into basement compartments, but will have to be shoveled out. Then, too, potatoes or seeds in sacks can be stored in dry basements of that kind. When the storing of that class of goods is in prospect then a light lifting arrangement from basement to first floor should be provided; or an automatic carrying device made with sprocket wheels and chains can be devised that will carry either barrels or sacks to the floor above with precision and celerity. Or still, again, an entrance from the outside, on the common outside cellar door plan, can be made that will permit the easy carrying of such goods in and out. Any of the foregoing plans can be adopted for making use of the basement of an elevator, and one or the other ought to be by all having basements of that kind, because it will add but little to the first cost of the house and may afterward prove of great value.

When ear corn has to be handled in addition to the run of loose grain what is known as the sheller pit has also to be provided in the basement. About ten feet square has, as a rule, to be devoted to that purpose, a part of it in the basement proper and a part running outside the building under the driveway, as has heretofore been illustrated and very generally explained.

The subdivision of the house into bins is another of the questions relating to internal arrangement. I would recommend that the first floor be solid in nearly all if not quite all small elevators. This floor should be laid before the bins are erected whether the house be cribbed or frame, and the bins started on the floor which should be very strong.

It is not necessary nor is it advisable to hopper the bins at the bottom as the grain will do its own hopping

and run well out, leaving a small quantity only that can be readily and easily cleaned out at proper intervals. One of the objects in not hopping the bottoms of the bins and the chief one, is to increase the holding capacity of the house. Whatever space may be taken up by the hopping takes just that much off the storage capacity and serves no useful purpose. Besides rats are likely to harbor behind the hopping, in fact, they are almost sure to do so, as no better or more secure hiding places can be found; therefore hopping the bins in small houses is only the act of providing so many safe and secure homes for mischievous rodents. The bins in small houses ought not to be very large and hence hopping is less needful.

In localities where seeds, flaxseed especially, and castor beans have to be handled in large quantities, a large share of the floor space may be devoted to that purpose by making a very wide passageway through the center of the house from driveway to track, or by devoting one-half of the floor from one end to the middle for sack storage. That sort of a provision is sometimes made in country houses, but it is doubtful if the practice can be recommended as that kind of storage can be just as well and probably more cheaply provided in another way. Light shed roof buildings answer all the purposes of such work, and they can be put up cheaply.

Very often cornmeal and feed mills are fitted up in country houses, which also requires additional floor space. That is legitimate enough, as that part of the business pays very well and ought to be well provided for and one-half the floor space of a small house can be devoted to that purpose and sack storage together. The space above the floor will, of course, be occupied by bins, and as there will be no solid floors those bins should be hopped so that they will entirely empty into a spout which will conduct the material to whatever other point in the house that may be required or directly into the cars when shipping out. When neither feed mills nor sack storage is provided for, or required, there should still be a reasonable amount of floor space for a roomy passageway and also for a warehouse separator, which is generally best located on the first floor on account of convenience. Requiring, as such machines always do, a great deal of attention, especially when very dirty grain is being handled, the more conveniently located they are the more certain are they to receive the attention required. The dirty grain bin or the one that supplies the separator must be hopped. A part of the center space above the floor must also be occupied by a hopper scale. That is located on the side next the track and placed high enough above the floor to empty freely into any part of a car standing on track in front of space. For filling car out of scale hopper a flexible spout should be used so that the car can be entirely filled without having to shovel too much.

Between the scale and the bin that feeds the separator a convenient stairway from first floor to cupola should be located. This stairway need not be broad nor occupy too much space, but should nevertheless be in such shape that a man can get up and down with ease and some haste when circumstances require it. When anything gets wrong with the machinery above it is necessary to get up quick and provision should be made by having an easy stairway and not an imperfect step ladder. The same open space through which the stair goes can also be used for letting the main belt and the elevator legs up. When the room inside the house is too limited for a stairway it is sometimes very convenient to run the stairs up on the outside against the end of the building next the engine house, the starting point being on the driveway just where the approach connects with it, up over the roof of the engine house and against the building to level of cupola floor where a suitable landing is attached to the building from which through a door the cupola is reached. This method of reaching the top of the house is perhaps as convenient as to have an inside stairway and, as a rule, can be put up with less trouble, there being no obstacles in the way.

When the small grain separator is located on the first floor the cupola is used mainly for receiving the heads of the elevators and the corn cleaner. The latter machine, while not requiring so much attention as the separator, still needs looking after and, as stated, should be easy of access by having an easy stairway. In short, the internal arrangement of an elevator ought to be convenient in every respect, as generally one man has everything to look after and unless he can get around quickly and easily the chances are good for something to be neglected just when proper attention is most needed.

## RIGHT TO BUILD ELEVATORS ALONG RAILWAY.

General G. L. Becker of the Minnesota Railroad Commission in a recent interview said: "We have now no serious complaints pending. When the wheat is moving heavily it is impossible to supply cars as fast as they are wanted and a great many complaints come in then. Conditions in this respect this year have been much more satisfactory than ever before. A question over which the people and the railroads are at variance is in the matter of allowing any one to build grain houses along the railroad lines. A law was passed compelling the railroads to lease from their right of way ground for an elevator to any one who applied for the nominal rental of \$1 a year. That law was declared unconstitutional. The last session the legislature passed a law compelling railroad companies to connect any elevator built on land adjoining their right of way with the main line by side tracks. The railroads are contesting that point. They say they want to know something of the responsibilities of the people who build an elevator before they spent money to put in side tracks. A test case is now being prepared. The Pope County Farmers' Association have built a grain house at Fawlow and were refused a side track. The refusal was given in an offensive manner, too. The general manager of the road said there were grain houses enough there. It is no business of a general manager to decide whether or not there are grain houses enough. The association bought its own land and called for a side track. The railroad refused and a complaint was made to the commission and a hearing has been fixed for March. The probability is that the commission will order side tracks put in at the expense of the company. The matter will probably go to our Supreme Court in the April term.

## BALTIMORE'S GRAIN TRADE.

The trunk line railroads of Baltimore so far this year have done a tremendous business in the handling of cereals. The receipts of corn and wheat for the past two months were the largest in the history of this port. In February alone over 10,000 cars, averaging from 780 to 800 bushels, were received and handled. Of this number the Pennsylvania received about 60 per cent. and the Baltimore & Ohio 40 per cent. The receipts should have been much larger, but owing to the lack of rolling stock on the Baltimore & Ohio Railroad much of the grain contracted for this port had to be diverted to Philadelphia.

The Pennsylvania Railroad, at the Canton elevators, received and handled in January 4,871 cars of grain, and in February 5,450 cars, making a grand total of 10,321 cars for the one road for the two months. It required two and a half steamships daily to keep the elevators clear. Philadelphia and New York grain dealers and exporters have in every way tried to prevent this favorable state of affairs, but they have been unequal to the enterprise and business sagacity of Baltimore grain brokers and exporters. The railroad companies say they perform their part only as common carriers, and that the big business is due to the energy and enterprise of our grain dealers. Grain men on 'Change regard this year so far as indicating a healthy increase in the business of the port and the growing importance of the city in the esteem of grain shippers in the West.

## WILL GROW RICE.

The rice crop of the United States does not supply half the home demand, and the latter has grown fast for several years. The consumption of the grain by brewers, already enormous, is increasing constantly, and the food consumption has enlarged several fold in the last decade. The country imports some millions of dollars' worth and pays a high duty on it. It has been shown that rice can be raised on large areas now devoted to cotton, at a profit of from \$20 to \$55 an acre. Here seems a fine opening for transferring lands devoted to unprofitable cotton growing to profitable rice production. The Southern farmer isn't going to be left without ample means of profitable diversification; but results will at last depend on his own intelligence and energy in branching out.—*Tradesman*.

Kansas City grain men never made so much money, never extended their trade so much, never handled so much grain in any year as they did in the year 1891.



**SAMPLING GRAIN AT CHICAGO.**

The inspection and registration of grain at Chicago is under the supervision of state officials, the inspection of flaxseed, grass seeds, hay, flour and provisions and the weighing of all commodities is done under the supervision of the Board of Trade. An effort has been made to place another part of the work connected with the handling of grain at Chicago under the supervision of the Board of Trade—that of sampling track receipts—but so far unsuccessfully. At present this work is done under the supervision of receiver's agents who are responsible to no one for their mistakes and are paid the same for taking samples whether they employ reliable and careful men to do the work or careless characters whose work is so unreliable as to be useless.

Each railroad that brings grain to Chicago has a receiver's agent who obtains his position or permission to do the work by presenting a petition to the officials of the road signed by commission men who receive grain over

bought the grain. For the second sampling the buyer pays 25 cents a car. The second sample is not so likely to be a fair sample of the grain as the first. The second sampler may take sample from the wrong car, take it from only one place in car, or fail to obtain a fair sample of the grain. In this case, if the grain was of inferior quality to that taken by the receiver's agent for consignee it would stir up a row.

For some time the Chicago Grain Receivers' Association has been trying to have a department established that would relieve buyers of the necessity of taking this second sample and diminish the opportunities for errors to creep in, but so far it has been unsuccessful. The association wants a General Receiver's Agent appointed by the Board of Trade, who shall employ and have charge of all the samplers, collect the charges and pay the men, that he shall have an office in the Board of Trade building, that the sample first taken shall be larger than now taken, and that half of it shall be kept in the office of the General Receiver's Agent for 60 to 90 days, where

**THE GRAIN BLOCKADE AT BUFFALO.**

Few grain shippers of the West and Northwest did not suffer directly or indirectly from the grain blockade at Buffalo, N. Y., last November. Shipments of grain were delayed at Buffalo, and shippers' contracts remained unfilled. The cause of the whole trouble, which finally extended to all parts of the North, was the greedy fight of the railroad companies doing business between Buffalo and Atlantic ports to get the grain away from the Erie Canal boatmen.

The elevator pool at Buffalo, which is in league with the railroad companies, kept most of the storage elevators and all of the floating transfer elevators at that port in idleness, and even went so far as to refuse to deliver grain to canal boats when cars could be obtained. The carriers tried hard to keep a supply of empty cars at Buffalo, but in vain. They retained every car sent on to their line, and refused to give them up, although the



THE GRAIN BLOCKADE AT BUFFALO.

that road asking that he be given permission to take samples of grain from the cars. Each receiver's agent employs several assistants. One goes with every state inspector of grain received by track, and whenever a car of grain is graded under the contract grade he takes a fair sample of the grain drawn out of the car by the inspector's grain trier or sampler, places it in a small sack by itself and tags it. He also takes samples of hay and of small lots of grass seeds.

All the samples taken up to 10 o'clock each morning are at that hour taken to the trading floor of the Board of Trade where they are exhibited by the commission man to whom they are consigned on his sample table. The commission man also receives a report upon each sample in which is stated the kind of grain, what it was graded and why, when it was shipped and when received. All samples taken after 10 o'clock are not taken on 'Change until the next day. For this service the receiver's agents on roads where very much grain is received are paid 10 cents per car, on other roads 15 to 20 cents per car. This charge is paid by the shipper of the grain.

When the grain is sold by sample the buyer usually has another sample taken from car and sent to his office, where he compares it with the sample by which he

it can be examined or compared with the sample furnished the consignee. Such a department would save time, trouble and expense to those connected with the grain trade and be far more satisfactory than the present system of sampling.

The samplers report carload "large" or "small" if it is above or below the average carload, and are expected to report condition of car whether or not it was open or leaking.

**FIGHTING THE CHINCH BUG.**

Practical measures of defense against the chinch bug, available for the coming season, are limited to the present destruction of the bugs in their winter quarters, to a diminution of their food supply by intelligent cropping, to the support of infested crops by the use of fertilizers and a liberal agricultural method in general, to the destruction of the insects in small grain in spring when they appear very abundantly there in patches, to an arrest of their movement and a destruction of them as they pass from field to field at harvest, and to measures for a prompt and early dissemination and a rapid increase of their natural contagious diseases.—*Bulletin No. 19, Illinois Agricultural Experiment Station.*

owners madly protested. This greatly reduced the grain carrying capacity of other lines, especially the other trunk lines, and they in turn kept all the cars of the Western lines they could get, so all lines except the Buffalo lines were short of cars, and they were long on grain.

By delivering grain to the canal boats or putting the idle houses in operation, the pool could have easily and promptly relieved the blockade, but that would have been directly against the interest of the Buffalo railroads, so it was not done.

A fair idea of the condition of the creek at Buffalo during the blockade can be obtained by looking at the illustration given herewith. Here it was that the grain blockade started. Each year of heavy grain exports will bring a repetition of the blockade, unless the shipping business seeks other channels or ample facilities are provided for transferring grain to canal boats and kept out of the elevator pool.

The blockades on the Eastern trunk lines are becoming more and more serious in results to shippers. One Western firm recently had over 300 carloads of grain, en route East, on side-tracks, and since it was shipped the decline in price of the cereals will reach \$50 to \$60 a car.



## DEVICE FOR REDUCING POUNDS TO BUSHELS.

A calculating device has been patented by C. M. Bradt of Joplin, Mo., which is intended to provide a convenient and reliable means for instantly reducing the number of pounds in a wagon load of grain to bushels.

The invention, which is illustrated herewith, consists in a grain calculating device constructed with a case in which is set a series of pivoted rollers, the pivot at one end being provided with a knob for turning the same. On the rollers are mounted sheets of paper on which are printed tables as follows:

The left-hand column represents the even hundreds of pounds in a load of grain. Over the rollers, set in the case, are strips or guides, on which are pasted slips of paper, showing the kind of grain the roller is used for, and on its lower edge are printed the figures 10, 20, 30, 40, 50, 60, 70, 80, 90, representing the odd number of pounds, if any, in the load. Supposing the number of pounds in a load of shelled corn to be 680, turn the roller until 600 in the left-hand column comes to the edge of the guide, then under 80 on the guide is found 12 bushels and 8 pounds. A similar device can be constructed for reducing carloads to bushels.

## THE INTER-STATE COMMERCE LAW A FAILURE:

Is the Inter-State Law a success or a failure?

Is the broad underlying principle on which that law is founded—equality for all shippers—recognized in the commercial business of the country?

Can the obscure shipper send his single car of freight at the same rate that the large shipper—with relations of close familiarity with railroad interests—is able to send his hundred cars; or is there still a system of favors and discrimination which is building up a few powerful interests and communities and strangling all weak competitors?

Is such discrimination extended from individuals to communities, and are certain favored localities being built up while other localities with as good or better natural advantages and lacking only the advantage of arbitrary corporation favor being left behind in a hopeless race?

Have railroad managers entered into partnership with large shippers, with the result that the commercial field in certain directions is absolutely in control of those men who are so favored with freight facilities and the profits of the business absorbed in this partnership existing between shippers and railroad managers?

These are some of the questions that are to be found in the commercial problem to-day, says the *Tribune* of Chicago. They are questions full of vigorous life and keen commercial interest.

Congress has declared that if that underlying principle upon which stands the foundations of the Inter-State Commerce Law is violated—that principle which stands for equality to all shippers and to all communities—the man who violates it, be he railroad magnate or commercial giant, has committed a serious crime, for which he may repent behind jail doors.

But the Supreme Court of the United States has stepped in and reasserted a fundamental principle of law; has declared that in this case, as in all others, no man need give testimony that would be incriminating to himself. With the establishment of that principle it has seemed to become impossible to learn by a judicial inquiry whether or not the law is being violated.

In view of these circumstances and conditions the *Tribune* undertook a special investigation of the Western railway situation. Its representatives were sent through Missouri, Kansas, Nebraska, Iowa and Minnesota. The question was looked into from every point of view. Both shippers and railway men were seen. State officials and members of the State Railway Commission were interviewed. Bankers, merchants and others interested in the commerce of the country and in the effect of railway management were talked with.

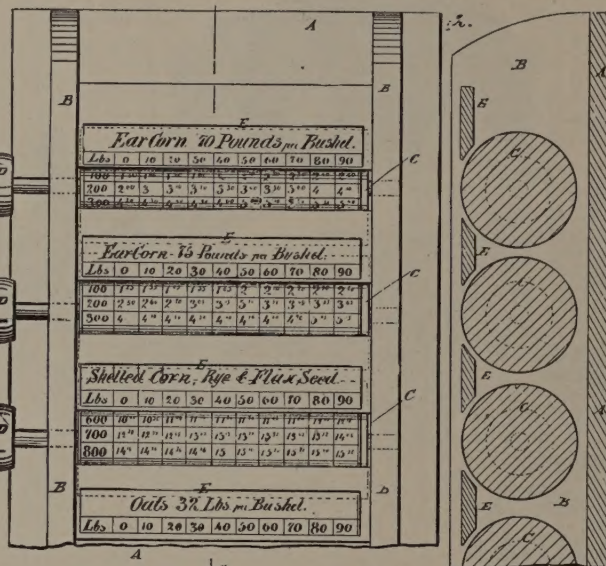
It is a noteworthy fact that in carrying on this investigation, in talking with the representatives of the railways, of the shipping interests, and of the state, there was not one word of praise of the Inter-State Commerce Law as it is now being carried out. There were more than 100 men interviewed who were the representatives of their class, and there was not one exception where favorable comment was found upon the present action of the law. The principles which the Inter-State Com-

merce Law has sought to enforce are almost unanimously favored by the shippers. The railroad men are not so heartily in accord with those principles, more particularly with the "Long and Short Haul" clause, but the people are unquestionably in favor of that, and are anxious that some way be found by which it can be enforced.

"The Inter-State Commerce Commission has afforded relief to no one," said ex-Governor Anthony, chairman of the Kansas State Board of Commissioners. "In my judgment Congress has proceeded wrong. From the starting point Congress has been in error. We are suffering from want of stable rates; not from a want of low rates. The Inter-State Commerce Commission has been usurping the authority of railway management. I want to see an Inter-State Commerce Commission, not an 'Inter-State Railway Superintendency.' It is every one's duty to look for some solution of this railroad problem. There is none more difficult before the American people to-day. It is doubly difficult because there is immeasurable greed on one side and unfathomable demagoguery on the other."

"The law, instead of being a benefit as it stands to-day, is a detriment to the people of the Western country," says Thomas H. Benton, State Auditor of Nebraska and chairman of the Board of Railway Commissioners of that state. "The law has worked to the disadvantage of the West. If it is possible to draft a bill as a substitute for the Inter-State Commerce Law, as it now stands, whereby all interests are protected alike, then let us have such a law."

"One man's business ability is being put up against



DEVICE FOR REDUCING POUNDS TO BUSHELS.

somebody's else cut rate," says Vice-President Oliver of the Wichita National Bank and member of the milling firm of the Oliver-Imboden Company of Wichita, Kan. "It is no use trying to do business when to-day you act on your judgment and to-morrow something happens to destroy all the conditions under which your judgment was formed. I am perfectly satisfied that the three heavy shippers of Kansas grain have cut rates, and have long had them."

The foregoing are a few of the sample sentiments that are met with when questions regarding the action and potency of the present Inter-State Commerce Law are asked. Such expressions of opinion might be indefinitely continued, for they were everywhere the same. As to the general point of whether the law as it now stands and is being enforced is a success or not, there was, without a single exception, but the one answer—"The law is a failure."

While the denunciation was hearty, the belief in the principles that the law sought to enforce and the desire for some law which will successfully enforce those principles was just as pronounced.

In the days before the passage of the Inter-State Commerce Law rebates and "special rates" were a common thing. They were given broadcast to every large shipper. This practice proved to be as disastrous to the interests of the railroads as it was to the general public. There was always uncertainty as to rates and a certainty of rate wars. The railroads, with the people, welcomed the enactment of the law which stopped that method of business. But following the doing away of that indiscriminate giving of rebates and cut rates has come another method, which is much more satisfactory to the

railway companies, but works with just as sharp disadvantage to the interests of the general public.

As an illustration in the matter of grain rates: The great systems of the West to-day are all following a plan by which a single man on each line is given special rates and is enabled thereby to control for himself and for the road he unofficially represents a vast majority of the grain business in the territory through which the road passes. Each road seems to have selected its representative in this way, and all appear to be carrying on the work under the same general plan.

The investigation has established these facts to a moral certainty. It has brought to light conditions in the Western grain market that can be accounted for by no other hypothesis. The absolute proof of the giving of rebates was found, and was admitted by shippers who had received them.

The point of no discrimination is one of the cardinal principles upon which the Inter-State Commerce Law is built. Another is the principle that a company shall not charge more for a short distance than a long, under similar circumstances and conditions. The evidence that that provision is not being enforced is notorious in several of the Western states.

J. S. Macauley is a grain shipper at Wichita, Kan. When he was asked if he believed the large grain shippers were getting rates from the railroad companies that were not given to the small shippers, he laughed at the ignorance of the questioner. "No one who has done any grain business in Kansas," he said, "can doubt for a moment that the large shippers are getting inside rates.

There is no use of discussing the question whether or not the Western roads give rebates. I know they do. I have got rebates myself. I had an arrangement with a road whereby it was understood that I was to get a rebate on all Western shipments of grain. The way it was done was for me to wait until I got a bunch of 'expense bills,' then take them to the agent here, and I was paid over a certain amount of cash. There was not a line of writing in connection with the transaction and nothing that could be used as evidence to show that a cut rate had been given. It is in this way that these large shippers are given an inside rate. I am sure of this from many circumstances that have occurred in the business here. For instance, I bought some grain from Counselman awhile ago for local consumption. It was necessary for Counselman to have the expense bills in order to collect his rebates, and so he informed me that he would make a small overdraft when drawing the purchase price of the grain, and that I was to draw back and attach to my draft the expense bills. I have no doubt whatever that the purpose of this was to bring the expense bills into his hands so that he might collect the rebate.

T. W. Lowrey has long been prominent in the grain business in Nebraska, with headquarters at Lincoln. He has the reputation among his competitors in the trade of having enjoyed special favors from the railroads. He has recently gone out of business. "Any man with the brains of an oyster knows that the shippers are getting rebates," said Mr. Lowrey. "So long as a man knows railroads are giving rebates he would be a fool if he did not take them. The intentions of the Inter-State Commerce Law are good, but the law is not enforced. The railroads are giving passes and are giving rebates as much as ever. It is wrong to make the shipper liable. The freight agents of the roads are smart fellows. They know the law and know how to avoid its penalties, but the average shipper knows little of its provisions and is liable to be led into a tight place by these smart railroad men. It now looks, however, as if every one can hide behind the Supreme Court decision. No one can doubt that Counselman's guilt was admitted when he refused to testify.

"What we ask of the Inter-State Commerce Law is that it put us on the same basis as all other shippers stand on," said a prominent grain buyer of Lincoln, Neb.

"It is the intent of the law," said this grain shipper, "to make me equal with the heaviest shipper in the market. It does not do that. We smaller shippers do not stand on the same basis with half a dozen favored shippers. This fact is patent to every grain shipper of this state. I have a good connection in New York as any grain buyer has. This year my New York correspondents came on here. We sat down and figured the situation out together, and we came to the conclusion that we must simply give up doing any New York business.

"This discrimination in rates cuts as deeply at the



New York end as it does out here. The Eastern grain buyers are fully as dissatisfied with the situation as we are. Milmine, Bodman & Co., commission merchants of New York, are the only people who can successfully ship corn from this point to the New York market. Other commission men simply have to get out of the trade. Gill & Fisher of Baltimore have facilities over the Ohio & Mississippi and the Baltimore & Ohio Railroads which have forced all local grain buyers out of the Baltimore business. Gill & Fisher took out 2,000 cars of corn early in the season, and they took it at prices which showed that they must have a cut of 10 cents a hundred or thereabouts to do it.

"While they were buying corn here freely I was unable to buy a bushel and pay a price which would warrant shipment to Baltimore on the basis of the Baltimore market. I wired my Baltimore correspondents, telling them the price that Gill & Fisher were paying here. They wired back saying that they were that day buying corn of Gill & Fisher and quoted me the price that it was being sold to them for. This evidence shows that Gill & Fisher were paying a certain price here for corn on a given day and were selling corn at Baltimore on the same day at another price, and that if the corn bought here were shipped to Baltimore at the published tariff rate of freight there would have been a loss of nearly 4 cents a bushel. Does any one suppose that a firm would be steadily doing such a business as that? Can there be any room for doubt that they were able to send this corn to the Eastern market at a lower rate than that quoted to the general public?

"Reynolds Bros. of Toledo, O., in connection with their New York correspondents, Milmine, Bodman & Co., are able in just this same way to control buying for the New York market. I have on my desk this moment a bid for corn from Reynolds Bros. of 37 cents. This corn must be shipped to them care of the Wabash Railway at Chapin, Ill., and sold subject to Toledo inspection and New York weights. Corn is selling in New York for 49 cents. If this corn, which they are paying me 37 cents for at Chapin, Ill., is sent to New York at tariff rates, it will show a loss of 3.76 cents on every bushel. Reynolds Bros. are able to control the market along the line of the Burlington & Missouri River, because that is the only road from this section that intersects the Wabash Railway at Chapin, Ill., and it appears to be a necessary part of their programme that all shipments are billed at Chapin. Their bids are for Toledo inspection and Toledo or seaboard weights and f. o. b. Chapin, Ill. Here is one of their printed confirmation of sale blanks. It says:

"Ship as follows: Order William Linden, Chapin, Ill., care of Wabash Railway at Chapin. Be sure and follow shipping instructions carefully and to the letter. Have same inserted both in billing and bills of lading."

"The Inter-State Commerce Law as it is being enforced is more than a failure. It is an outrage. The intentions of the law are all right, but the intentions are not being carried out. All I ask is a rate as good as any one else is getting. I am not getting that.

The result is that I am shut out of all the large grain markets. The only way that grain which I buy can be sent anywhere, except to local milling points, is for me to sell some one of these shippers who is able to ship with more advantageous freight rates than I can.

"I have myself seen rebates paid. I have seen the agent of a railroad company come into the office of a certain shipper and lay down a big bundle of bills. Not a word was said. No writing of any kind passed in the transaction, but I have not the slightest doubt but that money was paid as rebates on freight charges."

"There is not a man in business in the state of Kansas who does not believe that certain shippers have inside traffic arrangements," said Vice-President Oliver of the Wichita National Bank. Mr. Oliver is also a member of the milling firm of Oliver, Imboden & Co. of Wichita. "From my experience in the milling business," said Mr. Oliver, "I am absolutely certain that this is the case. There are a few men who have expended large sums of money in erecting systems of elevators along various lines of road. They have not done this without being guaranteed protection. I believe they have been pledged better rates by the railroads than are given to the ordinary shipper. One man's business ability is put up against another man's cut rate, and the result is exceedingly unsatisfactory to the man who hasn't the inside railroad arrangement. I am satisfied that the three heavy shippers of grain in Kansas have cut rates and have long had them. I do not think that these cut rates are now

given by under-billing or in any such a clumsy way as that, which would be liable to detection. The railroads themselves do not like under-billing. If they say to the shipper, 'You may underbill; you may weigh in 30,000 pounds and call it 24,000 pounds,' they have no safeguard that the shipper will not weigh in 32,000 pounds or 35,000 pounds and still call it 24,000 pounds. They do not know how much of a rebate they are giving. It is much more probable that the system now used is simply the paying in cash of the full published tariff and the protected shipper gets back a cash rebate, and there is nothing left to show the slightest record of the transaction. Grain business is being done in this state in a way that will admit of no other explanation than that the three large shippers are doing business under a protective rate. When all the great wheat markets are in line, and these men are able to make shipments that would show an absolute loss to any shipper who was paying freight at full tariff rate, can there be any doubt that they are buying under some arrangement more favorable than the public can make?"

"The tendency of the grain business in this state," said President Kollock of the First National Bank of Peabody, Kan., "is to concentrate in the hands of a few rich men. I believe it a great disadvantage to the country that this tendency is allowed to go on. It disturbs what would be the natural channels of commerce and the natural markets. Trade is drawn into the unnatural channel by rebates and special freight facilities that these rich shippers enjoy. Men who have spent the few thousand dollars that they have in putting up grain houses at small points are left in a position where they must carry on business at a great disadvantage. I will give you an illustration of how these special facilities drive trade into unnatural channels. A. C. Davis of Topeka, Kan., is a large grain buyer, and seems to operate specially along the line of the Rock Island. He has been buying at Aulne, six miles north of this town. He has been drawing grain from a district extending twenty miles around. Farmers who live along the line of the Atchison road, which runs through this place, have hauled their grain directly away from that line as far as twenty miles to deliver it to this point on the Rock Island. Certainly the idea one would form is that Davis is able to ship over the Rock Island at better advantages than ordinary shippers can get from that road or from the Atchison."

W. A. Dillon of the Nebraska Board of Railroad Commissioners, said, "I have no doubt that some of the large grain shippers in this state are getting inside rates. I know of shipments that have been made which would have netted a loss of three cents a bushel if regular tariff rates had been paid. This is not an advantage to the country. While it is possible that the man who has a cut rate may to-day pay the farmer a little more for his grain than he could otherwise get, it will all end in the farmer being worse off than he is now. I do not believe it is right for any one man or any one city to have an unfair advantage."

Governor Boyd of Nebraska, said, "The man who ships 100 cars a day should have a better rate than the man who ships only one. The Inter-State Commerce Law is a fraud and an imposition," said Gov. Boyd. "It works for the benefit of the roads and not for the people. I believe that many of the large shippers are getting rebates. In fact I know they are. This law ought to be wiped off the statute books."

The verdict is unanimous that there are violations of the law. When it comes to suggesting a remedy, however, the doctors disagree. It is evident that there is as yet nothing like a crystallization of opinion concerning what form legislation should take. Nearly every one agrees that the most likely solution of the most serious difficulties lies in the direction of pooling, but few have gone far enough to evolve anything like a comprehensive plan for applying that remedy.

There is a wide difference in the points of view from which the various State Railway Commissioners look at the situation and regard their own functions. The Kansas board is aggressive. It considers itself a representative of both the railroads and the people, but it believes that the people are in a vast majority. The Nebraska board regards lightly its power for efficient control. It is a board composed of other state officers, ex-officio, and they admit they have little time to give to a careful study of the situation. The Iowa board has long been prominent for its aggressive attitude. It is to-day well satisfied with the outcome of its battle with the railroads and calls the local situation satisfactory. In Minnesota a spirit of conciliation and conference has been fostered by the com-

mission, and the result has been to leave few serious complaints about the local condition.

The conclusions forced by the evidence are irresistible, says the *Tribune*. The law is being violated. There is a class of favored shippers being built up that is crowding out all competition and gradually obtaining control of the commercial field. The very principles which the law was enacted to enforce are in this way being repudiated to a greater detriment to the community perhaps than was the case before the law was enacted.

There can be no question, however, about abandoning the attempt to regulate by Federal authority the business of the common carriers. The whole people as a mass are in favor of the principles upon which the Inter-State Commerce Law stands. Stable rates and equal rates are everywhere looked upon as a boon even greater than low rates. The people are ready to welcome any measure that will better enforce the provisions that the Inter State law has sought to enforce, but they are entertaining no thought of abandoning those principles.

The answer to the question, "Is the Inter-State Commerce Law a failure?" is not yes. It is true it has failed to bring to the situation all those remedies for inequality that it was expected to bring, but it is moving in the right direction. What the people want is a better law built upon these lines, not an abandonment as a failure of the plan of supervision which this law was framed to carry out.

A consensus of the best opinion is that a solution of a great part of the difficulties which are presented in the present railway situation is to be found in legalized pooling. Everywhere the sentiment is met that stable rates and rates that are the same to all individuals, and equally favorable to all communities, are something of far greater importance than merely low rates. The best judgment points to the view that this condition can be obtained through pooling. All the complications of establishing such a pool are so great that few men have gone far into working out a solution in that direction. It is recognized that the present situation is not simply a fight in which the rights of the people are on one side and the greed of monopolies on the other. The railroads are in an extremely uncomfortable and unsatisfactory situation. Every one agrees that it is absolutely necessary that there shall be some way by which unrestrained competition between the railroads shall be stopped, and the companies held to a fair schedule of rates. It is a general belief both of the railroad men and railroad patrons who have brought the broadest study to the situation, that this difficulty can best be met by some method of pooling. Ex-Gov. Anthony of Kansas has gone further into this phase of the situation than any one else who was met with during this investigation. He proposes a plan which contemplates a vast pool of all railroads, with the control of that pool in the hands of the government. The making of rate sheets is at best but guesswork, he says, and the government's guess should be superior to the guess of the interested railroad man.

It is generally recognized by almost every one who has to deal with railway affairs that many of the difficulties of the present situation are directly traceable to over-capitalization. An attempt is being made to earn an income upon amounts of capital that represent no investment of money. This condition of affairs is recognized by the Kansas banker when he proposes as a remedy that railroad companies be taxed upon their total capitalization, rather than upon the estimated value of their property. He believes that would quickly force them to squeeze the water out of their capitalization and put an end to their efforts to earn dividends upon stock that represents no investment of money.

Another point that is recognized by many Western men is that railway development has gone on too fast and too far. The chairman of the Kansas Board of Railway Commissioners says that if 1,500 miles of Kansas railway could be taken up and their capitalization wiped out it would be a long step toward a solution of the present difficulties regarding rates. In the state of Iowa there is no point which is fifteen miles distant from a railway. This rapid progress in railroad building has led to the construction of illogical roads, parallel lines, and much unprofitable investment of money in unnecessary railway enterprises. The men who have been unwise enough to put their money into such schemes must either be convinced that they must accept losses just the same as men who go into unprofitable investments of other kinds have to do, or the country must wait until it grows up to its present railway facilities before a satisfactory adjustment of rates can be made upon such roads.



## LOSSES IN THE GRAIN TRADE.

There are many ways by which losses are made in the grain trade, which are not taken into account by those not familiar with all the details of the business. It is the popular thing in Manitoba to talk about the long profits made by grain shippers. This belief is not only among the farmers, but even many business men in other branches seem to hold the belief that grain men make inordinate profits. The grain trade, like every other branch of business, has its profits and its losses. There are seasons in which good profits are made on the year's business, and again there are seasons when the losses exceed the profits. No, it is not all straight profit and big margins for grain men. We could name seasons during the few years since Manitoba began to export, in which grain men have not held their own, and in which the majority of them came out poorer at the end of the crop year, than when they started in on the first of the crop.

At the present time it looks as though the crop year of 1891 would prove another disastrous year for many grain shippers, though the balance of the year yet to run may prove more satisfactory than the first half of the year has done. At the outset some shippers lost on the extraordinary advance in lake freights. Grain did not come to market as early and freely as was expected last fall, and grain shippers who had sold ahead, and became alarmed about filling their contracts before the close of navigation, began to pay long prices in order to draw out the wheat. Then when they got loaded up and began to ship, lake freights went up with a bound, from  $2\frac{1}{2}$  to 3 cents up to 7, 8 and 9 and even 12 cents per bushel from Fort William to Buffalo. This rapid and altogether abnormal advance in freights was of course a serious matter for those who had bought to ship on a rate of from 3 to 5 cents.

The next thing to bring trouble upon the trade was the railway blockade. This again meant serious loss to grain shippers. We have heard it stated that some have lost heavily on account of the congested railway situation East, individual losses ranging up in the thousands. At present there is any quantity of wheat, barley and oats held by Manitoba shippers which could not be sold in car lots on track at the price paid the growers for the stuff, much less pay for the cost of buying and placing on track.—*Winnipeg Commercial*.

## ARTIFICIAL RAIN MAKING.

In summing up his efforts to produce precipitation of moisture Gen. Dyrenforth says:

The experiments which have been made do not furnish sufficient data from which to form definite conclusions or data on which to uphold or condemn the theories of the artificial production of rainfall by concussion. Experiments extending over a period of only a few months can scarcely be sufficient; it is only by a number of tests that definite conclusions can be reached, and if then it be ascertained to a certainty that rainfall will be induced by explosions, that such production of rainfall be reduced to an art so as to effect precipitation at a predetermined place. What has been done so far is altogether preliminary.

The three principal tests which have been made, namely, at the "C" Ranch, Midland; at El Paso, and at San Diego, Tex (all under conditions much more unfavorable than need be encountered in attempts to produce rainfall), supply testimony which would seem to point to this inference:

First—That when a moist cloud is present, which if undisturbed would pass away without precipitating its moisture, the jarring of the cloud by concussions will cause the particles of moisture in suspension to agglomerate and fall in greater or less quantity, according to the degree of moisture of the air above the cloud.

Second—That by taking advantage of these particles which frequently occur in drouths, and in most if not all sections of the United States where precipitation is insufficient for vegetation, and during which atmospheric changes favor rainfall, without there being actual rain, precipitation may be caused by concussion.

Third—That under the most favorable conditions for

precipitation, conditions which need never be taken in operations to produce rain, storm conditions may be generated and rain be induced, there being, however, a wasteful expenditure of both time and material in overcoming unfavorable conditions.

## POWER PLANTS FOR ELEVATORS.

One of the best powers for a small elevator, feed mill, workshop or modern farm is a combined engine and boiler of the semi portable type. A rig of this kind is compact, convenient, safe, durable, and develops full power

lessen cost of manufacture. It rests on a cast iron base, with large ash-box underneath and an air space between this and the floor, to protect from fire. Each boiler is tested with cold water pressure at 150 pounds and is warranted to carry that much steam pressure. As it is entirely detached from the engine, there is no unequal strain upon it. Every engine is fired up and run before leaving the shop, and they are warranted to give satisfaction.

This company, one of the largest in the West, also manufactures stationary and portable engines and boilers of all sizes. We give an illustration of their center crank engine, which is admirably suited for medium-sized elevators and mills. The steam is generated by a horizontal tubular boiler, which the Murray Iron Works supplies, and as they take especial pride in their boiler shop, it is sure to be a first-class one.

## IOWA WAREHOUSE BILL.

A bill for the creation of public warehouses in Iowa has been introduced into the legislature, and great things are expected from it. The Council Bluffs *Nonpareil* says the passage and successful operation of a warehouse law will be the greatest boon to farmers and business men ever known in the history of the state. Perhaps so, but hardly without the speculative feature, which many of the Iowa farmers seem to regard as especially objectionable. Already they have facilities for getting rid of their grain and seeds. There are moderate storage arrangements, and traders stand ready to take from sellers all the produce they may have to sell at prices which allow the buyers a fair profit in selling it immediately on the speculative market of Chicago when they have not orders to ship to other points. It is not likely the producer could at any time sell it to better advantage to be stored inside the state.

The buyer would either have to sell for future delivery, to the class now often called grain gamblers, or he would insist upon a wide margin of present profit to cover the greater risk of loss by holding in store through a period of perhaps several months. It is probable he would exact twice as much as he now does in the shape of a difference between his buying and selling prices, so that the farmer would certainly be no better off than now. It would be necessary to pay out for interest and risk at least as much as is now absorbed by the intermediaries who handle grain, and buy and sell it perhaps many times between the time it is produced and that when it passes into consumption.

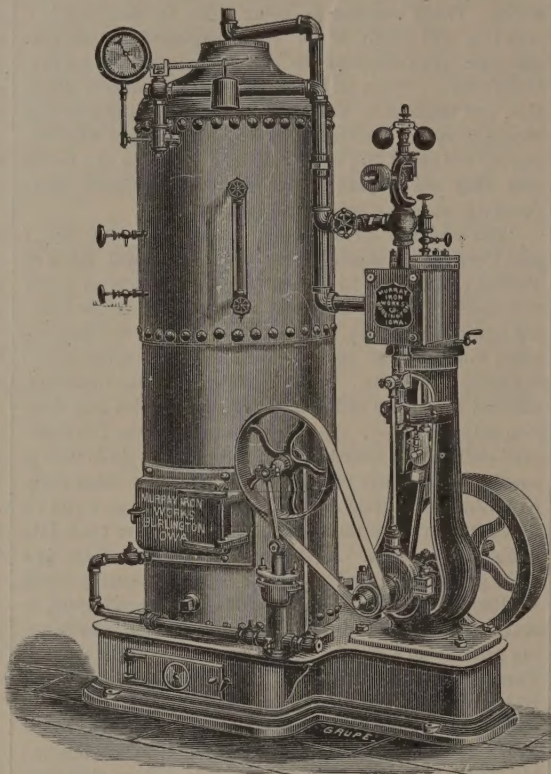
It is said by some that under a warehouse law such as is proposed the farmer could hold his grain in store in readiness to take advantage of the market when it favored the seller. But he would have to pay storage charges on it there, or interest on the use of the money borrowed on

it, or both, and might find it amounted to as much as is levied now on the handling of the grain. It may be remarked that the plan was tried a few years ago in the Northwest, and gave intense dissatisfaction to the class it was thought would be benefited by it. The farmer was furnished with a "receipt" for his grain when delivered at the country depot, and could sell this paper with the right to all for the delivery of the grain at any station on the line by paying storage charges and the difference in cost of transportation.

The plan was widely voted to be not only a dear one for the producer, but a means of oppressing him by bearing the price of his property. The grain was considered by the trade as so much of a menace on the market, and quotations were reduced in proportion as the quantity increased. This, however, was only the same rule that governs in the case of the

visible supply and in the market for other commodities. The more of an article there is in sight in proportion for the apparent demand for it, the less are the buyers willing to pay.—*Chicago Tribune*.

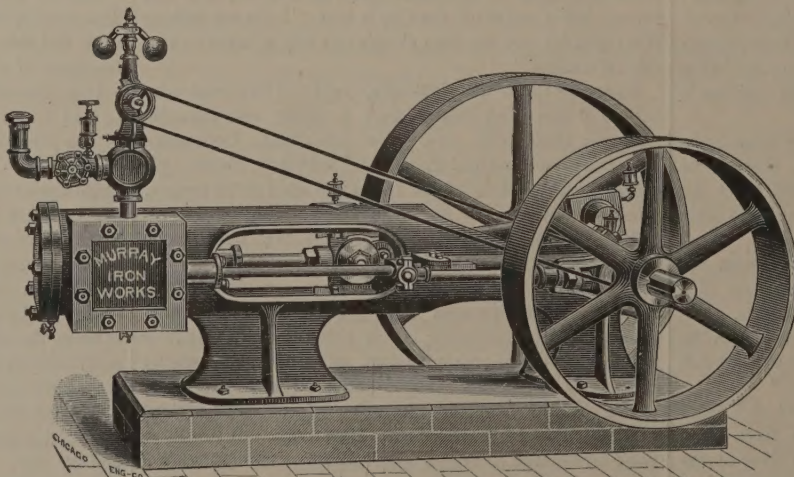
Ventura county, California, is the most prolific bean growing section in the world. One ranch of 2,200 acres has produced 1,030 tons of Lima beans this year. It took 31,000 sacks to hold the crop and they will fill about 103 cars on an average of ten tons to the car. The railroad company expects to handle 1,500 carloads of beans on the Ventura division this year.



SEMI PORTABLE ENGINE.

with a minimum consumption of fuel. The illustration that we present shows a model engine of this kind, manufactured by the Murray Iron Works Company of Burlington, Ia.

They have devoted years of time and careful attention to perfecting this class of engines, and as a result of their experience now present what is claimed to be one of the best semi-portable engines in the market. They are not cheap engines, but are in all respects first class. They



CENTRE CRANK ENGINE.

give all the power they are rated at, and are built to wear.

The engine has the great advantage of being independent of and detached from the boiler, consequently the bearings do not heat nor the working parts get out of line. The crank shaft bearings and cross head slides are cast of one solid piece with the column. The piston and valve rods are of steel, the shaft of hammered iron; all stuffing box glands are of best steam metal; every joint is made to take up the wear, and all parts are easy of access for adjustment and repair.

The boiler is wholly of the best boiler steel—ensile strength, 60,000. No cast iron head or other device to



## FARMERS' ELEVATORS.

It is reported that a large number of farmers in the Northwest have decided to undertake the business of building and operating grain elevators at Duluth, Superior and other points in conjunction with smaller arrangements at country stations. The farmers are to hold all the stock of the companies, no one having more than \$1,000, which it is thought will prevent the establishment of a monopoly or the selling out to one. Their agents will handle the grain from the time it reaches the railroad depot (and perhaps previously) to the date of its sale for shipment to a market in the East or in Europe. It is expected by this means to secure all the profit that would otherwise be reaped by the odious middleman and to so act that the speculator will no longer have things all his own way.

There is no good reason why the farmers should not act thus, if they want to do so and can command the requisite capital. They have as good right to handle their own grain as to sell it to some man or set of men who make a business of buying from the producer and selling to those purchasing for consumers. Probably it is well for them to take the step. They may understand the business better after the experience of a few years. Many of their number seem to have a firmly grounded conviction that they are made the prey of sharks, who cheat them in weights and grading, and otherwise make money out of their necessities over and above the inevitable cost of handling and transportation. Their view of the matter is so firmly grounded that it can only be removed by submitting it to the crucial test.

As the English elevator syndicate has recently announced publicly that it has reduced this thing to a science by selling each day on the speculative market a quantity equal to that bought from the farmers, it can hardly be wondered at if the latter think they can practice a little of the science too and in their own behalf. But it does seem a trifle singular that they expect to be able to do this after having abolished the said speculative market through the passage of the Hatch bill.

It is exceedingly probable that if the farmers undertake this elevator scheme they will not find it the bonanza expected. They will discover that they have to work in competition with others who are adepts in the business, and willing to operate for a moderate profit after paying the expenses of the operation. They will find reason to see that the big profits in handling grain have been made by men with big capital, and that if divided up among the holders of \$1,000 shares of stock they would not amount to very much in each case, that losses in the business have to be provided for as well as gains, and that individual judgment in the conduct of affairs is worth something. Perhaps also they would find out that the possible saving of half a cent per bushel in expenses can be more than counterbalanced by lack of ability to sell on the best market.

It may be supposed reasonable to expect that if it were possible to turn over to a syndicate of farmers the control of grain handling and the management of a few railroads for a term of years, their experience in handling both would not prove them to be altogether in the right in their charges now made against both. It might result in showing that undue advantages have been taken here and there, but that considering the problems they have had to grapple with, all of which are not of their own making, the managers of these enterprises have done as well as the average farmer would do for the benefit of the community served by them, provided the said farmer were sufficiently honest to want to pay operating expenses and interest on the capital invested. It is pretty certain that if both railroads and elevators were managed by the government, as is proposed by some of the self-styled reformers, they would cost a great deal more than they do now. There would be vastly more of

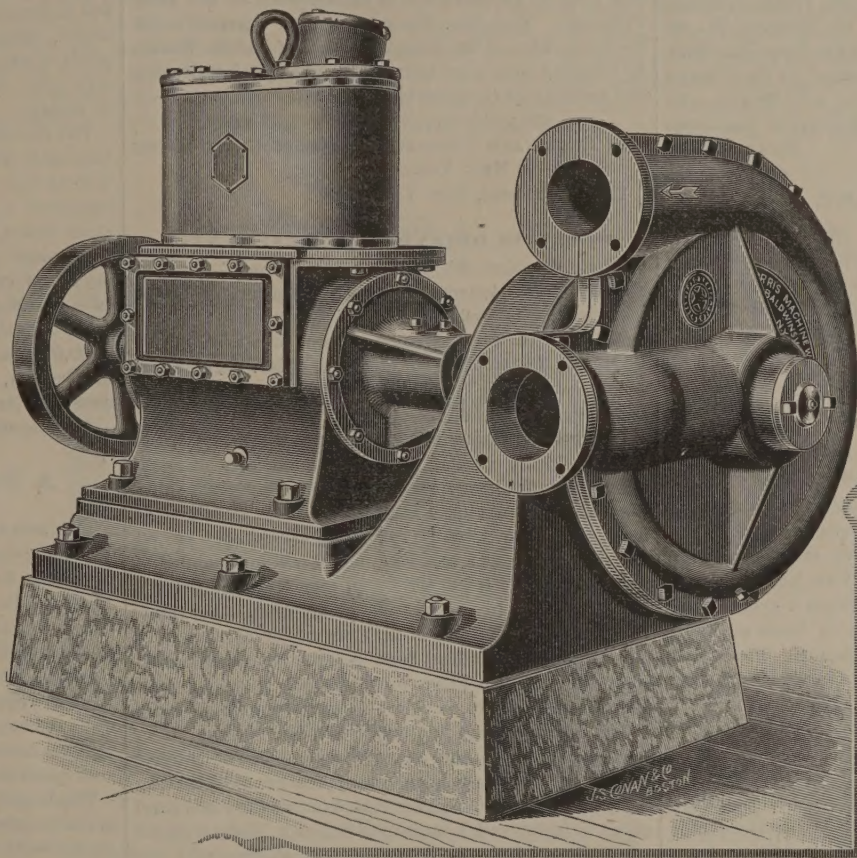
favoritism and other forms of corruption, and reason to look for great losses, owing to the fact that the conduct of affairs was intrusted to men in pay for political pulls instead of business ability or personal honesty.

## DIRECT CONNECTED CENTRIFUGAL PUMP.

The illustration given herewith shows a contractor's pump, consisting of a Standard Westinghouse Engine and a Morris Machine Works Centrifugal Pump coupled together.

Before the advent of the above-named high-speed engine, it was found necessary to run this style of pump by belt, except in some cases where the lift was but a few feet. Now pumps of any size can be had, as above shown, with a capacity of from 400 to 50,000 gallons per minute, for almost any lift.

The outfit shown is claimed to be superior for the following reasons: It is very compact. Considering capacity, it is very light. This style of engine is very efficient, giving a great quantity of water for a given amount of steam. The construction of the pump is such that the



A DIRECT CONNECTED CENTRIFUGAL PUMP.

passage of solid matter found in water is allowed, as the pump contains no valves or moving parts that will give trouble or be liable to wear.

This style of outfit has found favor in tanneries, where a composition pump is used to resist the ravages of the tan liquor; for circulating purposes on shipboard, and circulating brine in freezing tanks of ice machinery: for raising sand and gravel from river beds, and conveying it ashore by means of a discharge pipe; for dredging and filling at one operation; for irrigating and drainage purposes, and in fact for thousands of places where the maximum quantity of water is to be moved at the minimum of expense.

The pump is manufactured by the Morris Machine Works of Baldwinville, N. Y., while the engine is made by the Westinghouse Machine Company of Pittsburgh, Pa.

The grasshoppers which have appeared near Keytsville, Mo., have fortunately acquired the habit of cannibalism.

According to the *Globe-Democrat* correspondent there will be less cotton raised in the Southern states this year than last. The planters are practically all agreed that they must raise less cotton and more corn and bacon, and they say they are going to do so. The greatest reduction is apparently expected in North Carolina, where virtually an agricultural revolution is said to be under way.

## REFORM NEEDED AT BUFFALO.

The agitation for a reform in methods of dealing with business on the Erie Canal is not so vigorous as the subject demands. Apparently the weight of railroad rivals on the one hand and of corruptionists on the other forms a bad drag on the wheels of progress toward canal reform. "There is too much in it" for both. The enormous profits made by the elevator companies in handling canal grain are so much taken out of the business, so much of a clog on activity along the water route, and so much of a lever with which to lift and sustain opposition to the men who cry out against the imposition. An official statement makes the following presentation of the facts in the case of an elevator handling 275,000 bushels of grain per day:

Elevating at $\frac{1}{2}$ cent.....	\$1,718.75
Storage at $\frac{1}{4}$ cent.....	687.50
Use of steam shovel at 2-10 cent.....	550.00
Cleaning at $\frac{1}{8}$ cent.....	343.75

Total..... \$3,300.00

The actual cost of labor, etc., employed in performing this service is reported to be \$121, or barely  $3\frac{1}{2}$  per cent. of the amount charged. In spite of the fact that the greater part of the grain handled is in store but a few hours, the storage charge of  $\frac{1}{4}$  cent per bushel is always exacted, and even then the service is not always performed as wanted. During the last few days of canal navigation the railroad elevators absolutely refused to transfer grain to the canal vessels, and the reason for this is said to have been that it was desired to hold back the grain for railroad transportation after the canal had closed for the winter. No wonder that with such extortion the elevator men should be able to declare a profit of over 25 per cent. for last year, though but twenty-six out of the forty-four elevators at Buffalo were allowed to handle grain, the rest being kept idle. The animus of the movement is easily understood from the statement that the canal rate from Buffalo to New York is from 3 to 4 cents per bushel lower than the published rates by rail, and of course the grain tends to follow the lines of least resistance.

So the railroad men throw their influence in with the elevator managers, thus enabling the latter to impose charges they never could collect were it not for the influence of the men who control the rail routes to the seaboard. The magnitude of the struggle may be inferred from the fact that during the canal season more than 100,000,000 bushels of grain are transported from the lake ports to New York, Philadelphia and Baltimore over the canal and the railroads.—*Chicago Tribune*.

## FLAXSEED PRODUCTION.

Between 1879 and 1889 the flaxseed production of Nebraska increased eighteen-fold, and that of Minnesota twenty seven-fold, while South Dakota produced sixty-seven bushels of flaxseed in 1889 for every bushel raised in the corresponding portion of Dakota territory in 1879. On the other hand, there was an enormous shrinkage in the flaxseed production of Indiana and Illinois, which states produced 45 per cent. of the total crop of 1879, but only one-half of one per cent. of that of 1889. Of the 751 flax-producing counties in the United States, Mower county, Minnesota, produced the largest amount of flaxseed—312,108 bushels—and Lenape county, Michigan, had the highest yield per acre—twenty-six and six-tenths bushels. In 1849 1,371 pounds of fiber were produced in the United States to every 100 bushels of flaxseed produced. In 1889 4,296 bushels of flaxseed were produced to every 100 pounds of fiber.

Down in Wichita they are deriding C. Wood Davis, the \$2-a-bushel man, for actually selling his wheat this year for 71 cents.



## COMMUNICATED

[We invite correspondence from every one in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

### WILL GIVE BONUS.

*Editor American Elevator and Grain Trade:*—This town will give a bonus of \$3,000 for a 100-barrel roller flour mill and any correspondence addressed to us on the subject will receive prompt attention.

Very truly yours, **FOX & HILL.**  
Ardoch, N. D.

### SOLD ELEVATORS.

*Editor American Elevator and Grain Trade:*—The elevator belonging to Howe & Tisdale at Wilsman, Ill., on the C., B. & Q. R. R., has been sold to Peter Eschbach of Leonore. Their elevator at Munster, on the Chicago & Alton R. R., has been purchased by John Bowlin, who for the past five years has been their buyer at that place.

Yours truly, **NEWSGIVER.**

### BUSINESS STEADY.

*Editor American Elevator and Grain Trade:*—We have had a pretty steady business so far this season. Inclosed find \$1 for which please send me the AMERICAN ELEVATOR AND GRAIN TRADE for one year beginning with the April number. I want it regularly, as it helps in "my business."

Yours respectfully, **W. B. CLISBY.**  
Foreman W. W. Cargill & Bro's. elevator.  
La Crosse, Wis.

### EVERY ONE SHOULD HAVE IT.

*Editor American Elevator and Grain Trade:*—Having been a reader of your AMERICAN ELEVATOR AND GRAIN TRADE for a number of years I believe every man in the grain trade should have it. Though I am not directly interested in the milling business I believe a grain dealer should have the American Miller also to know all about the grain and milling business of America. Please find inclosed \$1.50 for the AMERICAN ELEVATOR AND GRAIN TRADE and the American Miller. I remain

Yours truly, **A. CAMERON.**  
Beachburg, Ont.

*Editor American Elevator and Grain Trade:*—I have just finished for Froedtert Bros. a grain and malt elevator which I fitted with a rope transmission driving from malt house to elevator. It works excellently. I am also at work on a chicory plant for the Frank Chicory Manufacturing Company of Cedarburg, Wis., using rolls and other machinery made by the J. B. Allfree Manufacturing Company of Indianapolis, Ind.

The other day I saw the Kraus-Merkel Malting Company's automatic malt house which was erected by Henry Smith. It works finely and is the nicest malt house I have ever seen. The Prinz & Rau Manufacturing Company is also enlarging its plant, and has put in a new Corliss Engine.

Inclosed please find \$1.50 for the AMERICAN ELEVATOR AND GRAIN TRADE and American Miller. I am

Yours respectfully, **PH. EIMERMANN.**  
Milwaukee, Wis.

### HOW THE ERIE CANAL IS BEING FROZEN OUT OF THE GRAIN TRADE.

*Editor American Elevator and Grain Trade:*—It is conceded by all fair-minded men who are familiar with this grain elevator case that the elevator combines are collecting an excessive toll of 1.7 cents per bushel for elevating canal grain, which on each million bushels amounts to \$17,000 to the grain shipper.

Last season the City Elevator at Buffalo, which is owned by the New York Central Railroad, handled over 34,000,000 bushels of grain; while twenty six elevators, which were built expressly for transferring grain from vessels to canal boats, were kept idle.

Another malicious act is that, after forcing all grain to

railroad elevators, they will load canal boats only when they have no cars on hand.

At present rail rates on wheat from Buffalo to New York are 7½ cents per bushel. But rail rates will drop to about 4 cents as soon as the Erie Canal is opened. Then the strife for grain between the canal and railroads begins as follows:

RAIL RATES.	Cts.	CANAL RATES.	Cts.
Wheat.....	4	Wheat.....	4
Drop to.....	3½	Boatmen follow.....	3½
Drop again to.....	3½	Boatmen follow.....	3½
Drop again to.....	3½	Boatmen follow.....	3½
Still another drop to.....	3	Boatmen follow.....	3
And so on down to.....	2	Keep following to.....	2

At the 2-cent rate the canal is frozen out, while the roads are actually getting 3.7 cents per bushel. In fact, the roads hold an advantage of 1.7 cents a bushel all the way down.

The \$200,000 asked for from the New York State Legislature will build four floating elevators at Buffalo at \$20,000 each, and four in New York (with propelling power) at \$30,000 each.

These elevators, by transferring grain at a quarter of 1 cent a bushel, will pay first cost every year, and the profit over running expenses will be turned over to the State Treasurer. The state elevators will be operated under the supervision of the Superintendent of Public Works, by selecting competent men, same as he appoints division and section superintendents on the state canals.

Respectfully submitted by

**THE CANAL AND HARBOR PROTECTION UNION OF THE STATE OF NEW YORK.**  
127 Broad street, New York.

### DELAY IN DELIVERY OF SHIPMENTS.

*Editor American Elevator and Grain Trade:*—The last number of your journal contains a complaint of unreasonable delay in delivery of grain shipments, to which most shippers will say amen. I do, and with all my heart, too. I have often suffered loss, as Mr. Barnett has, and oftener have I asked, "Is there no recourse against the common carrier?"

I am not a chronic kicker against rich corporations, but I am decidedly opposed to railroad companies compelling me to suffer heavy losses by delaying my grain along the route to the seaboard from one to three months. At most, more than twenty-four hours should not be required to transport a car of grain 100 miles on the line of any road. More is not necessary, even when allowing a reasonable time for delays. When my grain is not transported to its destination at the slow rate of 100 miles per day, I feel that it has been delayed an unreasonable length of time; that I have been imposed upon by a carrier that seeks not to serve my interests, for which I pay it, but to sacrifice my interests to advance its own.

The losses which I am compelled to suffer on account of delayed shipments is becoming too great to bear up under. I know no shipper that has not the same complaint to make, and I recently heard of a Kansas dealer who had over 250 cars out on the way so long that the price declined over \$50 per car before any of the grain arrived at its destination. It is very irritating to be compelled to lose \$12,500 by the neglect of a carrier whose services you pay for. Some railroad companies allow for shrinkage in weight of live stock when delayed in transit, and it is not unreasonable to ask that they make good to shippers any loss occasioned by their taking more than one day to transport a car 100 miles.

They also pay damages to fiddlers for not delivering them at their destination in time to keep professional engagements. Recently I saw it stated in a local paper that "Ovide Musin, the violinist, has been paid \$2,500 by the Great Northern Railway Company, because delay in the movement of its trains caused him to miss several professional engagements." If the fiddlers of foreign lands who are delayed by American carriers are entitled to damages, why in the name of common sense are not the grain shippers? More than one-half of the freight carried by the road mentioned is grain, yet it maintains this unjust discrimination against it. I do not know that it does not pay for losses caused by delay in grain shipments, but I do not suppose it does.

We must find some recourse against this imposition or we will be compelled to quit the business and give way to abler men, who will find a way to stop it. The sooner we find a way of protecting ourselves against loss by unreasonable delay of grain in transit, the sooner will carriers provide facilities for handling our shipments as they ought.

A READER.

### WET WHEAT IN THE NORTHWEST.

There are 12,000,000 bushels of wheat in the interior elevators of the Northwest sold for delivery in May. It may be a question of some interest whether it will be sent to the terminal markets of Minneapolis and Duluth to fill the sales, or whether the sales will be squared in some other way. With a large premium for futures and dry wheat, there would be no hurry to get it out of the interior. But the dryness is not above suspicion, and there are doubts about its being all dry enough for safety. It would not call for a great deal in each house of damaged grain to take off the profit that would accrue to the elevator to hold the wheat that is in it for summer storage. Besides that, there will be a large farm movement when seeding is over. Much of that movement will be of wet wheat, for there are large quantities to thresh that were stacked under serious disadvantages of rain or snow, without even reckoning the amount in shock.

Instances are too numerous of granaries that contain wet wheat. Many farmers as well as other people miscalculate the amount of moisture grain may contain when threshed in the winter, or during damp weather earlier, and in the eagerness to get the most out of it have even hoped, against experience and reason, that the high prices of summer would help them out with good profit, even after deducting ordinary losses for burnt wheat or musty.

The elevator people exercised much caution and have kept their wheat moving that was wet, in the endeavor to hold only the dry in store. But they all have unusual conditions to contend against, for the average of the grain called dry is liable to show dampness when the frost comes out. With such chances it is possible that the wheat in store will be shipped out to fill the May sales. To May is two months, and to the last of that month is less than three. To ship 12,000,000 bushels would move 1,000,000 bushels a week, and farmers' sales will be to ship besides, so that the prospect is that there will be an unusually large railroad movement all through the spring.

—Minneapolis Market Record.

### A FOOLISH IDEA ABROAD.

Manitoba farmers have reason to be thankful to the Winnipeg Grain Exchange for asking and to the railroad companies for granting free transport for seed wheat. There is a foolish idea abroad that grain men make a better proportionate profit from handling low grade or damaged grain than they do from handling the best qualities. How this idea gained such wide belief it is hard to say. We know well, says the Commercial of Winnipeg, that quite the opposite is the case, and that losses to Manitoba shippers have almost invariably occurred in handling poor qualities.

The frequent action of the Winnipeg Grain Exchange in endeavoring to encourage the production of choice grain should be sufficient to show the foolishness of the belief that it pays the grain men best to handle low grade stuff. The exchange has several times issued circulars, which have been distributed broadcast all over the country, giving instructions which if followed would improve the quality of our grain crops. Recently a circular was issued, showing how the production of smutty wheat might be avoided. Following this up, a deputation of the exchange interviewed the managers of the railway companies, and asked them to transport seed wheat free of charge, from one point to another.

It is well known that it is desirable for farmers to change their seed occasionally. The object of the exchange was to induce farmers to change their seed wheat, so that the best qualities of grain would be produced. The railways agreed to the request, so that a farmer whose wheat is run down, or not of choice enough quality to be used safely for seed, may procure seed from another district, and have it carried free of freight charges. It is to be hoped the farmers will take advantage of this valuable concession made to them by the railroad companies, and secured for them through the instrumentality of the grain men.

Loaded to her bulwarks with flour and provisions for the famine-stricken provinces of Russia, the steamship Indiana left Philadelphia, Pa., February 22 on her voyage of mercy with the cheers and well wishes of the thousands and the strains of "America" following her as she steamed down the river. The great cargo she carries is purely a Philadelphia offering.



## A PATENT WAGON DUMP.

John Simpson of Simpson & Robinson, the well-known grain elevator builders and architects, of Minneapolis, Minn., has been granted a patent on a wagon dump, and assigned one-half interest to his partner, Deighton A. Robinson.

The invention relates to improvements in a dumping platform for tilting a wagon in order that its contents may be quickly removed. The illustration given herewith shows a longitudinal vertical section of the dump. The mechanism is supported upon the framework 2, and this in turn may be supported upon suitable levers to form a weighing apparatus.

In the platform above the frame are openings to receive the dumping timbers or track beams 5. The distance between these beams corresponds with the gauge of an ordinary wagon. The beams are made large enough and long enough to support the wagon when loaded, and each is supported by a segmental frame 7, constructed of T-iron. It is secured to the under side of the track beams. The segmental frames are connected so that they will operate together by means of the plank indicated at 11, which are fastened to the upper flange of the T-irons. The space between the track beams and the frame is filled in with timbers in order to properly support the frame. Each frame rests upon two or more rollers. Instead of arranging only the track beams to tilt while the main part of the platform remains stationary, the entire platform may be supported upon the segmental frames and arranged to tilt.

One or more brake beams, 13, may be hinged or pivoted upon the frame 2, and extend under the segmental frame and bear against it on the planks 11, so that as the end of the beam 13 is moved upward it will be brought into contact with the planking on the segmental frame, and the friction between the two will control the movement of the track beams as the frame travels on the rollers. A suitable shoe is secured upon the beams at its point of contact to take the necessary wear.

A stop or dog, 15, is located under the end of the track beam and is secured to the frame 2 by a hinge. This stop is connected with the brake beam so that as the brake beam is raised the stop is operated. It may also be operated by an arm, 16, projecting from the side opposite the pivot hinge 17, and connected with the brake beam by a link and bolt. By raising the outer end of the brake beam the arm 16 is also raised and causes the stop to swing upon its pivot, releasing its upper end from the track beam. The track beam is forced down at that end by the weight of the wagon, and assumes the position shown by the dotted lines in the illustration. The motion of the beams is retarded by the friction brought to bear by the contact of the brake beam, and the surface of the segmental frame.

The device for raising the brake beams is so arranged that the outer end of the brake beams is connected by a cable with the door of the receiving bin, into which the grain is dumped. One of the pulleys over which this cable passes is placed upon the end of stop, and the tension on the cable aids in releasing the stop from the track beams.

A device for independently operating the track beams, by which they may be raised without removing the wagon, is also provided. It consists of two pulleys secured upon a continuous shaft hung in suitable bearings upon the frame and extending to the side of the machine and provided with bevel gear, upright shaft and hand wheel, by which it may be rotated at will.

The advantage claimed for this dump over the ordinary pivoted dumping platform is that by supporting the timbers upon a segmental frame resting on rollers the pivoted center upon which the beams oscillate are

placed above the bearing point of the load, thus balancing the load as it is tilted, preventing any sudden movement of the timbers and avoiding the liability of breakage. The larger the radius of the segments the slower will the timbers operate.

## THE BUCKET-SHOP NUISANCE.

The betting spirit is still strong in the community, says the *Chicago Tribune*. A great number of people invest their spare cash in mere bets on the course of prices in stocks and produce, though they need not think long to be convinced that they stand nothing like an even chance against the men who rake in their money. One of the experts, who speaks from experience on the winning side, is quoted as saying that the bucket shop keepers "win five for every one they lose." This may be an overstatement of the case, but it would hardly be unfair to place the chances of the business at two to one, making it compare in that respect with the prospects of the man or woman who patronizes the lottery. The bucket shop is no better in other respects than is the lottery, and if it be correct to suppress the one it is right to suppress both. They are mere gambling institutions, and their patronage is drawn from the least moral part of the community, that being precisely the one that might be thought sufficiently shrewd to let alone any device which makes the chances against them much greater than those

## TRYING TO SAVE THE GRAIN RATE REGULATOR.

The Canal and Harbor Protection Union of New York state and friends of the Erie Canal met at Albany, N. Y., Wednesday, March 2. President Captain M. De Puy made some pertinent remarks in calling the meeting to order, and stated that its object was for the purpose of considering the ways and means of making the Erie Canal as efficient as possible, and to urge upon the Legislature expedient and necessary legislation relating thereto.

Resolutions were adopted asking the Legislature to provide for the construction of a suitable number of grain elevators at Buffalo and New York, on the ground that, while the Erie Canal is capable of carrying 150,000,000 bushels of grain annually, it is "frozen out" by the railroads.

A resolution was also passed asking the Legislature to appropriate enough to complete the improvements to the Erie and other canals, as the state receives a direct cash benefit of \$15,000,000 or \$20,000,000 annually from canal commerce, and as it is not only out of debt, but has \$4,000,000 refunded by the national government to its credit.

The Legislature was also asked to make all wharves free to foreign and domestic commerce. New York and Buffalo now exact four to five millions for wharfage.

This resolution was adopted:

WHEREAS, The United States Government in years past has slighted and neglected the Hudson River, which is one of the most important channels of commerce in North America, and as said river, in connection with the Erie Canal, places the producer of the great Northwest and the consumers of the Eastern states near to each other, besides furnishing cheap transportation for the products of the West to the seaboard for export; therefore, be it

*Resolved*, That we, citizens of the state of New York, and interested in canal and river transportation, respectfully request the

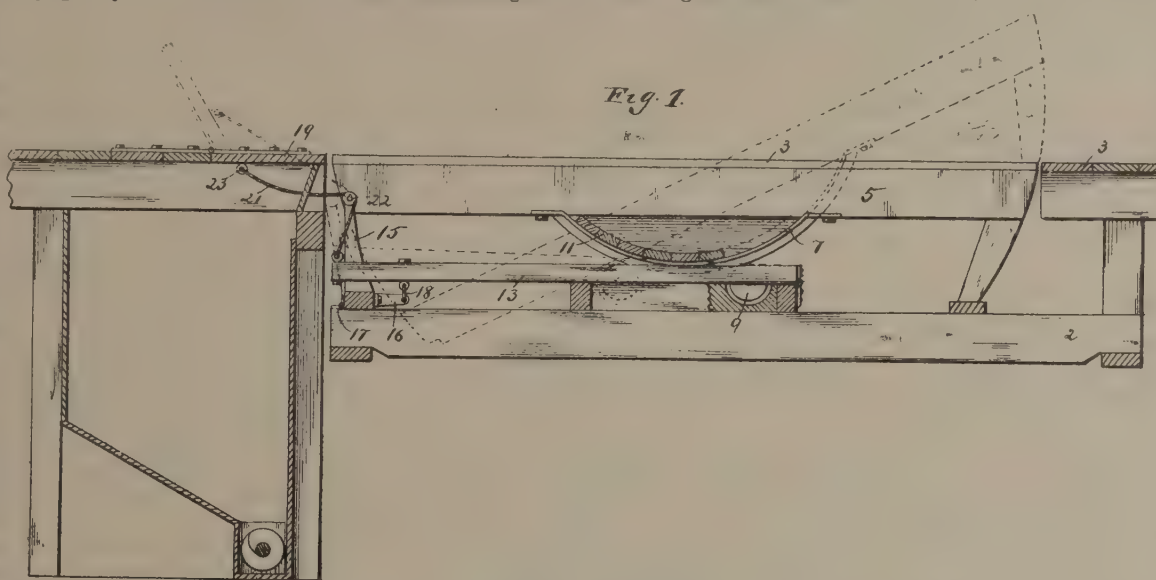
government to immediately improve the channel of the upper Hudson in proportion to its importance to the nation. A. F. Potter of West Troy then addressed the meeting on the subject of canal improvement. He said that the state canals should be taken out of the hands of the politicians, as no radical benefit can come to the canals so long as its appropriations from the state are dealt out by partisan officials. He said that the interests of the canals were lost sight of in the manifest desire of legislators to legislate in favor of the railroads. He then reviewed the history of the canals in this state and their competition with the railroads, in which he severely scored the latter. The great state of New York should keep its canals in such a condition that they can successfully compete with the railroads. "Too many are too little interested in the Erie Canal," he said in conclusion, "and it is not a commendable feature of this meeting to see so few of the representatives of the cities along the Erie Canal and for which the canal has been so beneficial." His remarks were enthusiastically received.

Mr. De Puy then took the floor and made some very able arguments in favor of the improvement of the canal.

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The total stock of flaxseed at Chicago is by far the greatest on record and is said to be more than double that of any previous time in the history of the trade. The last visible supply statement showed an increase last week of 95,871 bushels to 4,034,460 bushels, including the 300,000 bushels afloat in the river. The stock one year ago was considered large at 1,492,446 bushels. Cables indicated weakness abroad and current quotations are several cents above an export basis. Oil cake was quoted dull at about \$19 per ton free on board cars at Chicago.



A PATENT WAGON DUMP.



## SELLING OPTIONS.

Come here, my dear, I want ter say a word or two ter you  
'Bout what I think's the proper thing for me 'n' you ter do.  
Ye've gave me mighty good advice sence we was wed that  
day  
'Way back in sixty-one, 'n' now I'd like to have ye say  
Ef you don't think I've got a right ter do as others does,  
'N' sell the crops before they grows, just like them East-  
erners.

Why, Meg, a man out in Neo York hez sold a lot o' corn  
The't several thousand bushels more then what the coun-  
try's borne—

'N' got his money too, I'm told, 'n' didn't have a peck  
Of grain of any kind in hand to back his little spec.  
He cleared a hundred thousand cash! 'N', Meg, that's more'n  
we  
Have cleared at farmin' all our days, or ever will, by gee!

'N' I can't say I sees the use o' workin' day by day  
'N' only sellin' what we raise for mighty little pay,  
When them as hasn't any grain can sell up there in town  
A million pecks of wheat 'n' corn, 'n' git their money down.  
The modern plan's a dandy, Meg, 'n' ef we makes it go,  
I'll get you that planner, 'n' the trottin' horse for Joe.

We'll raise the mortgage off the roof, 'n' paint the old barn  
red,  
'N' send the gals to Paris, France, and buy a rosewood bed.  
We'll get new carpets for the floors, 'n' keep a hired man,  
Ef only I can go to town 'n' learn to work the plan.  
'N' mebbe, Meg, I'd make enough to run for governor,  
Or get sent down to Washin' on a full-fledged senator.

I tell yer, gal, this is an age thet beats creation. Say,  
What would your father've said, d'ye think, if he wuz here  
to-day,  
Ter see folks sellin' wheat and corn, and hull cars full o' rye.  
'N' 'leven-twelfths of all they sold nowhere but in their eye?  
How he would yell ter think of us a-makin' of a pot,  
O' gold at sellin' fellers things we haven't really got!

What's that you say? It isn't straight to sell what ye don't  
own?  
'N' if I goes into the spec, I goes it all alone?  
The music on the piannay ye think would drive yer mad,  
If it was bought from sellin' things ye never rightly had?  
Waal, have yer way; I'll let it go; I didn't mean no harm;  
But what is straight in cities can't be crooked on a farm.  
—John Kendrick Bangs in *Harper's*.

FIELD EXPERIMENTS WITH OATS,  
1891.

This bulletin gives results of experiments with oats  
conducted during 1891, in regard to rate of seeding,  
depth of sowing and comparison of varieties. Compar-  
isons are also made with results of similar experiments  
in previous years.

The trials were a'l made on the fertile, dark colored  
prairie soil of the Station grounds. The season was un-  
usually favorable for oats. In Central Illinois, as well as  
over much of the United States, larger yields were re-  
ported than for many years past. The weight per bushel  
was also very large. The rainfall during the season of  
growth was unusually light—6.51 inches for April, May  
and June, while the average for these months for ten  
years has been 12.68 inches. The rainfall during the  
autumn and winter preceding had also been very light—  
11.17 inches for six months, from October to March.  
The average temperature for the three months of growth  
was nearly the same as in 1890 and as the average for ten  
years, except in May, in which it was 6.2 degrees cooler.

In all cases, except in testing effect of depth of cover-  
ing, the oats were sown broadcast by hand.

The largest yield of grain was from sowing 3.5 bushels  
per acre, with little variation between the plats sown at  
rate of 2, 2.5, 3, 3.5 bushels per acre. The average yield  
for four years was slightly larger when 3.5 bushels were  
sown, with but little difference whether 2, 2.5, 3, 3.5 or  
4 bushels were sown. For the four years' sowing, one or  
one and one-half bushels gave smaller average yields  
than any of the heavier seedings. The weight of the  
grain per bushel was less in the case of light seeding.  
The yield of straw increased with the increase in rate of  
seeding. For the two preceding years the lightest seed-  
ing gave the largest yield of straw. For four years  
there was comparatively little difference in the yield of  
straw.

The results of the trials of planting were affected by  
other causes, yet seemed to give best returns from cover-  
ing two inches deep, but without great variation from  
covering from one to four inches deep. In trials for  
four years the best results have not come from covering  
the same depth in any two years.

In tests of 44 varieties on 55 plats the average yield  
per acre was 66.6 bushels of grain, weighing 33.5 pounds  
per bushel, and 2,840 pounds of straw. Four varieties  
gave more than 80 bushels, and but one less than 50  
bushels per acre. Nineteen varieties on 21 plats gave an

average yield of 74.7 bushels, with averaging weight of  
34.12 pounds per bushel.

In the seed sown there was an average of 71.7 per cent.  
of kernel in the berry, and of 70.3 per cent in the crop.  
The Virginia winter, with the smallest yield and lightest  
weight per bushel, had the largest per cent. of kernel in  
the crop. The smallest per cent. of kernel in the crop was  
62.1 in a plat of Welcome, badly down; the other plats  
of Welcome had a large percentage. Omitting these  
exceptional plats the greatest difference in per cent. of  
kernel in the seed was 16; in the crop, 11.8.

The early maturing varieties stood first in average  
yield of both grain and straw, weight per bushel and  
size of kernels, but lowest in per cent. of kernel. In  
1890 these varieties gave the most grain but the least  
yield of straw and the lowest per cent. of kernel.

The varieties with closed panicles gave a somewhat  
larger yield of both grain and straw and a larger per  
cent. of kernel than those with open panicles. In 1890  
there was little difference in yield.

The white varieties gave the largest average yield of  
grain and the smallest per cent. of kernel; the black  
stood second in both respects; the few dun-colored stood  
lowest in yield and highest in per cent. of kernel. In  
1889 the order was the same throughout. In 1890 the  
dun-colored varieties stood first and the white last in  
yield.

No one variety has been shown to be greatly superior  
to all others. A different variety stood first in yield in  
each of the three years.

Not counting an exceptionally late variety, there was  
a difference of 24 days in date of cutting. Five varieties  
were cut July 6 and two July 30. Of the 55 plats 28  
were cut between July 16 and 20.

The trials for three years do not show that the yield is  
determined either by the length, plumpness or weight of  
the berry, or by the weight per bushel of the grain.  
The varieties with long, slender, light berries and light  
weight per bushel have had the largest per cent. of ker-  
nel and, hence, the highest food value.—*Bulletin No. 19,*  
*Illinois Agricultural Experiment Station.*

WHEAT IN THE TEXAS PAN-  
HANDLE.

F. M. Cockrell, president of the Dallas Elevator Com-  
pany of Dallas, Tex., recently said: The railroads handled  
only 904 cars of grain raised on their road in Texas from  
July 1, 1890, to Jan. 1, 1891, and they have handled of  
the present crop from July 1, 1891, to Jan. 1, 1892, 3,700  
cars, more than fourfold, and there is yet in that section  
of the country about two-fifths of the crop, which will  
make over 5,000 cars for the year 1891-92. Add to this  
the increased amount required for seeding and the de-  
mand by the mills on that road, and the crop of 1891-92  
will reach somewhere between four and five millions.  
This does not include what has been raised on the Texas  
& Pacific West, nor what has been raised through the  
Black Waxy belt and the Brownwood districts.

The increased acreage of wheat for the coming season  
in the Panhandle country among the old farmers will be  
from one-third to one-half more than last year; the oat  
crop will be about five times as large. The new comers  
have broken and prepared ready for spring seeding for a  
large crop, which will be in either oats or wheat. One  
fact has recently developed itself that to some extent ac-  
counts for the large increase of the crop of 1891-92 over  
and above the expectations of the most sanguine invest-  
ors, viz., winter wheat, when planted in December and  
in the early part of January, has proven to be as good as  
when planted in October or November. This seems to be  
peculiar to this section of the country, as winter wheat  
states, as a rule, finish their seeding about December 1.  
This insures a crop in this section of the country at all  
times, as the drouth is invariably broken in December if  
there is any. Grain sown in the spring, as far as tested,  
has also been a success. I am satisfied from the data  
before me that the Ft. Worth & Denver Railroad, the  
only road penetrating this section, will be taxed to its  
utmost capacity to handle the coming crop, and it is very  
questionable whether it can do it with expedition.

State Senator Probstfield of North Dakota says, "One  
of the greatest needs of Duluth is a sample market.  
There is no doubt that millions of bushels of low grade  
grain is turned away from Duluth and goes to Minneap-  
olis because it can be disposed of to better advantage  
there on account of their sample market."

## THE GOVERNMENT CROP REPORT.

The March report of distribution of wheat and corn  
by the statistician of the Department of Agriculture  
makes the stock of wheat in growers' hands 171,000,000  
bushels, or 28 per cent. of the crop; 63,000,000 of spring  
wheat, and 108,000,000 of winter wheat, much of the  
latter in states which have practically no commercial dis-  
tribution, but entering into local consumption for bread  
and seed.

This is the largest reserve ever reported, that of the  
largest previous crop (of 1884) being only 69,000,000  
bushels.

The exports from July 1 to March 1 were 164,000,000  
bushels, the fall seed 36,000,000 bushels, the consump-  
tion apparently 200,000,000 bushels, but a larger propor-  
tion is taken for consumption in the fall and winter and  
the actual consumption is proportionally greater than in  
the spring and summer.

The assumed consumption from March 1, 1891, to  
March 1, 1892, is 300,000,000 bushels, for a population  
of 64,300,000; the exports 206,000,000 bushels; the seed  
56,000,000 bushels, a distribution of 562,000,000 bushels.

With 41,000,000 visible and 171,000,000 invisible, 27,-  
000,000 bushels are not directly accounted for previously,  
which came in the unprecedented squeezing of all sorts  
of reserves, mainly from the always unaccounted stocks  
of flour between mill and mouth and from small unac-  
counted stocks between the farmers' granaries and the  
visible supply.

The average weight of wheat is 58.5 pounds per mea-  
sured bushel, which is the estimated weight of the crop of  
1887, and is nine-tenths of a pound above the average of  
eight previous years.

The estimated quantity of corn in farmers' hands is  
860,000,000 bushels, or 41.8 per cent. of the crop. This  
is the largest proportion ever reported, that of 1889 ex-  
cepted, which was 45.9 per cent., or 970,000,000 bushels.  
The seven principal states have a surplus of 546,000,000  
bushels, or 41.5 per cent. of their product, against 667,-  
000,000 bushels from the great crop of 1889.

The proportion merchantable, is the largest ever re-  
ported, 88.5 per cent., against 85.7 two years ago. The  
average of eight previous crops is 82 per cent.; and the  
lowest average 60 for the frosted crop of 1883. The  
present average farm price of merchantable corn is 39.2  
cents per bushel; of unmerchantable, 25.7 cents.

## GRADING AND QUALITY OF CORN.

The grading of corn varies and depends on crop con-  
ditions and weather. Last year's corn is somewhat irreg-  
ular in condition; that from Southern Indiana and Ohio  
is rather soft, but the corn from Illinois, Iowa, Nebraska,  
and the Northwest (which is sent to Chicago) generally  
is in very good condition. The reason of the small per-  
centage grading contract (No. 2) in Chicago this year is  
practically the change to a higher standard or on arbi-  
trary rule (in the interest of a certain clique of Chicago  
operators) which requires No. 2 new corn shall be equal  
in dryness to No. 2 old corn. Heretofore it has been the  
rule that when new corn was sufficiently dry to grade  
No. 2 it was a good delivery on contract, but not so to-  
day; under the present ruling No. 2 new corn is made a  
separate grade, and is not a good delivery on the regular  
contract grade.

That the present gradings in Chicago as advanced to a  
higher and different standard are arbitrary is proved by  
the fact that a good proportion of the corn grading only  
No. 3 in Chicago, on arrival at New York grades No. 2  
quality, and the New York inspection has not been  
changed—its standard or grading. And this is also the  
case in other seaboard markets—Philadelphia, Baltimore,  
etc. Last year considerable of the Chicago shipments  
of No. 2 corn on arriving at New York graded only as  
"steamer" or one grade under No. 2.—*New York Evening*  
*Post.*

The late inspections show some 25 per cent. of the  
grain coming now to be hurt from one or another cause,  
much of it being due to late threshing. With so much un-  
fit for local grinding requires, in this season of milling ac-  
tivity, larger arrivals than usual, excepting the local mills  
are turned on to local supplies, which would be unprofit-  
able unless the price of track wheat advances above  
wheat for delivery in May. It is thought farmers have  
some 30,000,000 bushels yet to sell. That, with the stock  
now in interior elevators will make a large spring and  
summer movement.—*Minneapolis Market Record.*



## Trade Notes.

Proper advertising always pays. Give it due attention and it comes back with cash in its pocket.

The Borden & Selleck Company of Chicago has increased its capital stock from \$50,000 to \$150,000.

O. C. Cleave & Co. of Chicago, manufacturers of oat cleaners, have been succeeded by Thomas Whitfield.

Huntley, Cranson & Hammond of Silver Creek, N. Y., in one mail recently received orders for sixty-eight Cranson Scourers and Monitor Separators.

In their line, the trade journals are the very best advertising mediums and command a higher price per line for space than any other journals expect or can secure.

John H. McLaren, R. T. Bush and others have organized the Sumner County Grain Separator Manufacturing Company at Gallatin, Tenn., to manufacture and sell a grain separator of the Sturgeon patent.

C. M. Bradt of Joplin, Mo., has patented a device for ascertaining the number of bushels of grain in a wagon or carload. A Chicago commission house has ordered 200 of his machines, which sell at \$5 each.

Merchants who permanently advertise create the impression of strength and of soundness. People at least feel that those who keep their names before the public are solid and substantial.—*Dry Goods Chronicle*.

The Stevens Manufacturing Company has been incorporated at Peoria, Ill., to manufacture mill and elevator machinery. Capital stock, \$125,000. The incorporators are Lucius O. Stevens, Valentine G. Hielter and William C. Edwards.

J. A. Campbell & Son of Lincoln, Neb., designers and builders of grain elevators, report that they "have had a good run of work all through the winter and now have new jobs just starting at Geneva, Ia. and Palmyra, Neb., and more on the string, besides several jobs of repairing and remodeling on hand and being finished."

Facts are the foundation of good advertising. They are likewise the ground floor and second story. It will not be carrying the architectural simile too high or too far to say that advertising is the front elevation of a business, while everything behind and below that gives backing and support must be composed of substantial, well seasoned facts.

I heard a "missionary" (that is a traveling man) once say that he would not go on the road for a firm that didn't advertise, for it took too much valuable time to explain to every supposed buyer who he was, where he came from and what the merits of his goods were. He said, moreover, that if the buyer had all this information beforehand he generally received him cordially, was glad to see him and had been looking for him for some time.

It was a wise man who said: "Leave nothing to what is called 'luck' and you will generally be what is called 'lucky.'" So in advertising. Take every possible precaution that will assure success. Secure the best advertisement obtainable—the one of all others that will be most likely to bring you business. Then see that it goes in the right mediums—the papers that will bring you the largest returns. By giving painstaking care to all of these essentials, you will probably find that you will have "good luck" in advertising.

H. W. Caldwell & Son of Chicago will soon place on the market the Improved Charter Gas Engine, of which they are the sole manufacturers. The engine is the invention of J. A. Charter, and it will be made in sizes from 2 to 75 horse power. It is said to give the best satisfaction in large engines. A 4-horse power engine has been in use at the firm's plant, 127-133 West Washington street, for some time, running a dynamo to supply electric lights. It is very simple, so an expert is not required to operate it.

A reporter of the Philadelphia *Times* recently visited the works of Merchant & Co., 517 Arch street, when opportunity was afforded him to view the new Spanish tiles, made of copper and tin and manufactured by that firm under their patent. These tiles are claimed to have superior merits over the clay tiles for the reason that they are much lighter in weight, and when made of copper are practically indestructible, as a copper roof is known to be the most durable roof in the market. The copper itself when removed from the roof has a commercial value

which is possessed by no other roofing material when taken off.

### HISTORY OF TACOMA'S GRAIN TRADE.

In 1881 Tacoma, Wash., was but just planting itself in the dense coniferous forest on the shore of Commencement Bay, comparatively "unknown and unsung," without means of transportation save a railroad to Kalama on the Columbia River and the ample and magnificent waters of Puget Sound, extending from the Pacific Ocean that carries upon its surface the ships and commerce of every nation of the globe, and with only a population of about 1,100 people. Portland had for years been the commercial center and shipping point for all of Washington and sought to thus maintain its mastery.

During this period the Northern Pacific Railroad was being extended hither, and it secured the shipments of its rails and other supplies by ocean vessels from the East direct to Tacoma, with the promise that these ships should have return freight, and, besides, later on the railroad company desired to demonstrate that wheat could be brought from the warehouses of Portland—then the market for Eastern Washington and Oregon—by the river to Kalama, forty miles, thence by rail 105 miles to Tacoma, and loaded upon ocean ships for Liverpool cheaper, because of the superior and less dangerous route to the ocean.

The American ship *Dakota* was the first to arrive at Tacoma from New York in October, 1881, with a cargo of railroad iron. While it was unloading its iron arrangements were made by the railroad officials and Captain Gilkey to get a cargo of wheat from Portland, which was secured, 1,826 tons, from the warehouse of Balfour, Guthrie & Co. of Liverpool, with branch house at Portland, which the Northern Pacific proposed to transport from Kalama to Tacoma at a reduced rate.

From the original check or memorandum book of Mr. George O. Kelley, who then served as freight clerk at the wharf, we have obtained the following facts about the loading of the ship *Dakota* with the first cargo of wheat shipped from Tacoma: It contained 30,180 sacks, equal to about 1,826 tons, or 60,360 bushels, then valued at about \$51,000. This wheat, Mr. Kelley says, was first transported by Dr. Baker's narrow gauge railroad from Walla Walla to the Columbia River, where it was reloaded upon a river transport to the Cascades, there again loaded on cars and taken around the rapids, then again on a river transport to the Portland warehouse—thus handled five times. From Portland it was loaded on a river transport to Kalama, where it was again loaded upon cars for Tacoma, and here it was transferred to the ship *Dakota*, thus making eight times these 30,180 sacks were handled before they reached their destination in Liverpool.

Heretofore the record has been erroneous in failing to note wheat shipments from Tacoma in 1882. From the shipping clerk's original check or memorandum book we have learned that the ships H. P. Gregory and Iroquois brought railroad iron to Tacoma for the Northern Pacific and took in return two cargoes of wheat, as noted in the accompanying table, both clearing in October, 1882, the wheat coming from Walla Walla by way of Portland.

Again in 1883 the British ship *Hecla* arrived at Tacoma with a cargo of iron, and in November, 1883—the season of 1883-4—cleared with a cargo of wheat. There was no wheat shipment in 1884.

In 1885 three cargoes of wheat cleared from Tacoma, the first by the American ship James Drummond, which cleared for Bristol, Eng., October 10; the next was the ship Benjamin F. Packard, which cleared for Queenstown, October 20, and the third was the American ship *Artisan*, which cleared about December 28 for Bristol. The shipments of that year amounted to 140,920 centals, or about 234,866 bushels.

After the completion of the forty miles of Northern Pacific road from Kalama to Portland in 1884, wheat from east of the Cascade Mountains came direct by the Columbia River and rail to Tacoma, without passing through Portland. In fact, 210 tons of the cargoes of the ships Gregory and Iroquois in August, 1882, were transported direct to Tacoma from Walla Walla by rail and river. After the shipments of 1888, there was no further occasion for the shipment of railroad iron for the Northern Pacific by way of Tacoma, hence no special inducements for ships to come for wheat, as the direct main line of the railroad would soon be completed over the Cascades, when the interest of shipping and com-

merce would bring them to Tacoma for the large shipments that would then flow into its warehouses. There were no shipments from here during the season of 1886-7. But during the season of 1887-8 they began again in earnest three ships clearing that season, and twenty seven the following season, 1888-9, the shipments aggregating about 2,328,400 bushels, valued at \$2,127,974. The next season, 1889-90, there was a shortage of the wheat crop in Washington and Oregon, hence there was no increase, but about equal to the season prior, while the shipments from Portland were over 2,000,000 bushels less than for the prior season and about 882,000 bushels more than Tacoma's shipments for that season. The next season, 1890-1, Tacoma's foreign shipments were 3,712,580 bushels, while those of Portland were about 1,000,000 bushels more. However, this season it is getting to the front in fine shape, and doubtless has now gained the mastery as the foreign breadstuff shipping metropolis of the North Pacific coast. Its shipments thus far, December 31, the present season of 1891-2, amount to about 4,000,000 bushels, and from Mr. Alexander Bailie—of long experience and the well-informed manager of the house of Balfour, Guthrie & Co. of this city, which makes over half of the wheat shipments from Tacoma—we get the estimate that the shipments from Dec. 31 to Aug. 31, 1892, the end of the present season, will aggregate about 3,000,000 bushels more, making a grand total of 7,000,000 bushels for the present season. This is a grand record and progress achieved through natural and legitimate results in ten years. During this decade—from infancy to vigorous young manhood—there were shipped from Tacoma to foreign ports about 17,655,640 bushels of wheat.

To handle this immense amount of wheat Tacoma had no conveniences, save from the cars to the vessel direct, until 1888, when the first warehouse was built by the Puget Sound Flouring Mills and Warehouse Company to supply this demand, with the flour mill erected the next year. The warehouse is along the deep water front on one side and the Northern Pacific tracks on the other; is 900 feet long by 130 feet wide, one story, with a storing capacity of 600,000 bushels.

The next warehouse was that of the Tacoma Warehouse and Elevator Company. The Tacoma Warehouse and Elevator Company has the most conveniently arranged warehouse and elevator, and no similar institution can receive grain from cars and discharge to ships more expeditiously than this. Its storage department is well managed, always creating pleasant relations with patron and shipper. Its managers are pleasant, accommodating gentlemen, and have the favor of all that do business with them.

This was followed by the Northern Pacific Elevator and Warehouse, built by the Northern Pacific Railroad Company in 1889, and has a storing capacity of 650,000 bushels, being 450 by 150 feet on the ground, five stories high, and located near the others, along the company's tracks on both sides and the deep water front.

Prior to the time that the Puget Sound Warehouse was built grain arriving at Tacoma for shipment had to remain in the cars until ready to be loaded into vessels, and during the wheat shipping season of 1887-8 loaded cars of wheat occupied about all the side-trackage at many points from the wheat regions, awaiting transportation to Tacoma, and here the sidetracks were filled with loaded wheat cars for weeks awaiting to be unloaded into vessels.—*The West Coast Trade*.

A beautiful sample of wheat was shown on 'Change, Winnipeg, Man., one day last week. The variety was Campbell's White Chaff, and the sample was sent by Prof. Saunders, director of the Dominion experimental farms. The wheat was grown at Red Deer, Alberta. It appeared to be a hard wheat, and was greatly admired by the grain men present.—*The Commercial*.

A North Dakota farmer was at Duluth recently and here is what he had to say regarding the investigation of the management of Duluth elevators, which resulted in the complete exoneration of the defendants: "Duluth has borne the entire brunt of this investigation so far, and it is evidently the purpose of Senator John Day Smith of Minneapolis, chairman of the committee, to keep the investigation aimed at Duluth until the appropriation is exhausted and so that Minneapolis elevators cannot be reached. While we farmers feel that there may have been some irregularities in Duluth elevators we believe that the real villainy is at Minneapolis, and will not be at all satisfied with the investigation unless it includes Minneapolis.



## THE "PROPER PRICE."

Following is the full text of the address delivered by President Charles L. Hamill, of the Chicago Board of Trade, before the committee to whom was referred the anti-option bill now before Congress:

The necessity for the existence of a speculative body and the useful function it performs in adjusting the supply of, and demand for, products of the soil is clearly recognized by all modern economists. No great knowledge of political economy is necessary to understand the laws that an advance in price checks consumption and stimulates production, and that a fall in price checks production and increases consumption. Granting, therefore, that the function of price is to adjust these factors, it follows that there must be some price at which they are most perfectly adjusted. Professor Cairns calls this the "proper price" and defines it as "the price which suffices to adjust in the most advantageous way the existing supply to the existing demand pending the coming forward of fresh supplies from the sources of production."

That this price is the one best suited to the needs of consumer and producer alike is evident. The consumer requires that the price be not advanced to a point that will unnecessarily check consumption, nor depressed to a point that will encourage too great consumption and waste, and either action is necessarily followed by the other. The producer requires that advanced prices do not too greatly stimulate production, nor depressed ones check it, as either extreme implies the other, and either works to his injury. Assuming this as true, we have still to show that the speculator, by his judgment and action, performs the needed service of making actual market values conform to this desired "proper price." He must do so. The condition of his existence as a successful speculator is that he sees and conforms his action to the best interests of producer and consumer. His action cannot influence the "proper price;" supply and demand regulate that. His action does determine the actual market price, and only as it tends to make this coincide with the "proper price" will it in the long run be profitable to him. His motive is not philanthropic; the farmer does not produce from philanthropic motives; he who consumes, does so to preserve his own life; yet each, from selfish motives, performs a service necessary to the others.

To state the matter in another way, we may say that it is to the interest of both consumer and producer that fluctuations from the "proper price" be minimized as much as possible. When we see the great fluctuations that occur even now, notwithstanding the great number of far-seeing men, acting freely and without interference of arbitrary laws, controlling the capital, ready to buy when prices are too low and sell when they are too high, we can readily understand the alternating periods of panic and inflation that would occur were this balance wheel removed or seriously interfered with.

The natural conditions that govern the production and distribution of food products are such as to cause wider fluctuations than occur in the case of other commodities. The demand for the former is almost the same in times of plenty and of famine. A man's first care is that he has that with which to support life, and he will bend all energies toward procuring food—in other words, will pay very high prices. On the other hand, he cannot eat more than so much, so that the demand for a surplus over requirements will be small in times of plenty, and serious declines in price will result. Further than this, supplies cannot be increased except as stated and at far apart periods of production, so that an equalizing factor present in most production is absent in this.

The movement last fall of the wheat crop of this country was unprecedentedly large, but there was no excessive accumulation of supplies at any point in this country. Why? The dealers and exporters, knowing the ability of this country to deliver, placed enormous amounts of wheat for future delivery in Europe at the high prices paid by dealers and speculators there; these dealers and speculators, encouraged by the prospect of a very large demand, to be caused by a partial failure of their own crops, advanced their bids from day to day; the exporter filled the orders as best he could in one market and another, and by the time the farmer was able to deliver wheat in volume, the machinery was all in motion and the crop moved off at good prices. If this preparatory work had not been done a glut of wheat would have ensued, and buyers would have withdrawn until

the glut had depressed prices to a point satisfactory to them.

Immediately after harvest great quantities of product are hurried forward and placed on the market by producers unable to hold them either through lack of capital or suitable storage facilities. This greatly increases one factor, supply, and as consumption is practically constant throughout the year, the second factor, consumptive demand, would not at all keep pace with the first, and extremely low prices would result were not another element, namely, speculative demand, introduced. So in times of too active demand, caused by groundless fear as to the amount of supply, a third element, namely, speculative supply, or selling for future delivery, is introduced, and prices are kept from undue enhancement. Speculative demand, when wisely employed, is generally admitted to be a useful factor, but its necessary corollary, speculative supply, proves a stumbling block to the unthinking.

Attention has been often called, generally to promote unfavorable comment, to the disproportion in numbers between speculators in food products and those in other commodities. The natural conditions outlined above furnish a complete explanation of this fact and show the necessity for it. The very fact that this speculative body exists would, however, alone be sufficient proof of the necessity for its existence, since, when economic laws work freely without legislative interference, the parasite cannot exist, and the natural groups into which men divide themselves are those best suited to carry forward the progress of the world.

We have examined the function of the speculator as related to production and consumption. There is still to be shown his service in the work of distribution. Buying in the market that is relatively cheap, selling in the market relatively dear, he prevents undue accumulation at some points and undue depletion at others; and by this equalizing process helps on that distribution best suited to the world's requirements.

The proposed measure is intended to absolutely prohibit all merchants, great and small, from dealing in or handling in the legitimate channels of trade, all of the products mentioned in this bill. While it avowedly gives to the farmer the right to make contracts for the future delivery of the products of his farm, it prohibits, by the most despotic means, the merchant, with whom the farmer may make his contracts for future delivery, from disposing of the property until actual delivery is made by the farmer. What is the result of this, not only to the merchant in general, but to the farmer in particular? Simply this, as to grain, that while the farmer has the naked right to dispose of his property, even before he has raised it, he can really dispose of his wheat only and this to the miller alone. His corn, oats, rye and barley must be sold, if sold for future delivery, to a dealer who, under the provisions of the bill, would be prohibited from disposing of such property until its actual delivery. It entirely eliminates all legitimate competition in the purchase from the farmer of his products, for the reason that the miller and the malster alone remain unhampered as possible buyers from him. It discriminates solely in favor of the miller and the malster, and creates a monopoly for their advantage by driving out every other dealer and warehouseman.

The question naturally arises in connection with this bill whether it is either wise or practicable to stifle legitimate speculation in anything. The spirit of speculation is inborn in man. The sleepless tendency of all enlightened minds is to speculate upon future conditions and events; and it is to this attribute in man that the highest type of civilization everywhere owes its advancement and stability.

It is clearly to be seen that at least two things would result from the passage of this bill, neither of which the wildest of theorists would care to defend. First, the overturning and unsettling, to the extent of the total destruction, of long established and well understood usages in the handling of the agricultural products of the country; second, the restriction placed upon men from engaging in what would otherwise be legitimate trade, not for the purpose of producing revenue, but for the ostensible purpose of benefiting a class and creating a monopoly chiefly for the benefit of millers, but by the necessary operation of which the farmer would become by far the most serious loser.

The bill necessitates an army of spies and informers everywhere obnoxious to men of all classes and condi-

tions, and involves the exposure of private business to such a degree that all fair-minded men must denounce it as an invasion of personal liberty and private rights never contemplated and never tolerated either by the spirit or practice of our free institutions.

## Queries and Replies.

Questions and answers are inserted under this head free of charge and all are invited to avail themselves of this column.

**No 25. Grain Storage Certificate.**—Will some country elevator man who gives out tickets or certificates for the storing of grain, please send me a copy of the same?—X. Y. Z., care AMERICAN ELEVATOR AND GRAIN TRADE

**No. 26. Cotton Seed Meal.**—We have been thinking of buying some cotton seed meal, and not knowing where to get it, we happened to think that some reader of the AMERICAN ELEVATOR AND GRAIN TRADE might give us the name of a firm that manufactures it.—FEUCHTER BROS., North Lindale, Cuyahoga Co., O.

**No. 27. Strength of Bin Bottoms.**—Will the readers of the AMERICAN ELEVATOR AND GRAIN TRADE please let me know through its columns why wheat bin bottoms that are not strong enough to carry the weight of wheat in bin, if applied directly on bottom, do not break out? My "Haswell" says nothing about the strange things wheat will do in an elevator.—J. C. LIPSETT, Winnipeg, Man.

**No. 28. Refusing to Receive Grain Bought.**—In the last issue of the AMERICAN ELEVATOR AND GRAIN TRADE it was explained how a buyer could get even with a shipper who refuses to deliver grain at contract price. Being a shipper, I would like to know how I am to get even with the buyer who refuses to accept grain at contract price when the market is declining or has declined below the contract price. I would be pleased to read the opinions of shippers who have had experience in this matter, and if any shipper has found an effective way of protecting himself against losses occasioned by buyers refusing to accept grain at contract price, I would be very thankful if he would make it known. I want to learn a sure and a legal way of compelling buyers to accept their purchases and to bear their own losses.—SHIPPER.

## RECEIPTS AND SHIPMENTS AT CHICAGO.

The following table, compiled by George F. Stone, secretary of the Board of Trade, shows the receipts and shipments at Chicago during February, 1892 and 1891, of seeds, hay and broom corn:

Receipts.	Timothy lbs.	Clover, lbs.	Other grass seeds.	Flax- seed, bus.	Broom corn, lbs.	Hay, tons.
1892.....	4,812,402	232,389	664,200	466,620	452,325	19,241
1891.....	4,128,297	1,017,426	670,107	190,193	1,769,710	11,799
Shipm'ts.						
1892.....	3,754,879	1,549,923	580,464	321,940	701,327	3,724
1891.....	1,441,557	1,764,339	2,921,994	200,555	798,260	1,166

## EXPORTS FROM ATLANTIC PORTS.

The exports of breadstuffs, as compiled by George F. Stone, secretary of the Chicago Board of Trade, from Atlantic ports during the two weeks ending March 5, as compared with same weeks last year have been as follows:

	For week ending March 5. March 7.		For week ending Feb. 27. Feb. 28.	
	1892.	1891.	1892.	1891.
Wheat, bus. ....	1,986,300	175,300	1,572,000	487,500
Corn.....	3,343,200	452,100	2,646,500	498,300
Oats.....	96,400	4,700	103,500	3,400
Rye.....	68,000	.....	53,500	.....
Flour, bbls.....	334,100	130,800	351,800	187,800

C. E. Achorn, Sutherland, Ia.: "THE AMERICAN ELEVATOR AND GRAIN TRADE seems to be worth the money, judging from a sample copy."



## EXPORTS OF BREADSTUFFS DURING FEBRUARY, 1892.

The total exports of breadstuffs, of grain and wheat flour during February, according to the report of the Bureau of Statistics, was as follows:

		New York.		Boston.		Philadelphia.		Baltimore.		New Orleans.		Principal Pacific Customs Districts. (a)		Total.	
		Quantities	Values.	Quantities	Values.	Quantities	Values.	Quantities	Values.	Quantities	Values.	Quantities	Values.	Quantities	Values.
BARLEY—Bushels.															
Month ending Feb. 29.....	1892	112,363	\$ 64,904	583	\$ 200	.....	.....	.....	.....	.....	.....	85,339	\$ 19,049	156,993	\$ 90,249
	1891	1,175	1,096	.....	.....	.....	.....	.....	.....	.....	.....	33,239	24,987	34,414	26,083
Eight months ending Feb. 29	1892	669,986	422,144	20,195	15,214	.....	.....	25,955	20,764	.....	.....	1,436,172	929,236	2,169,046	1,389,076
	1891	1,175	1,096	.....	.....	.....	.....	.....	.....	.....	.....	352,609	248,664	351,574	249,760
CORN—Bushels.															
Month ending Feb. 29....	1892	2,345,738	1,344,458	268,247	145,489	3,502,631	\$ 1,813,413	4,707,607	2,378,819	1,595,546	\$ 797,188	18,758	13,859	12,728,990	6,632,090
	1891	307,140	193,857	127,123	83,112	177,143	111,902	290,230	185,027	274,211	160,650	9,340	7,656	1,414,719	870,464
Eight months ending Feb. 29	1892	15,237,395	9,565,483	3,275,649	1,924,067	9,560,878	5,117,339	11,258,068	5,950,605	2,975,060	1,601,436	77,089	70,298	45,076,838	25,788,187
	1891	9,210,958	4,961,358	1,645,699	874,166	1,477,265	783,726	2,939,992	1,557,021	1,931,726	973,088	80,978	63,990	20,936,717	10,990,631
OATS—Bushels.															
Month ending Feb. 29.....	1892	57,242	22,696	192	90	92,439	36,975	60	29	211	94	7,229	3,606	263,460	107,897
	1891	16,281	9,425	225	147	.....	.....	.....	.....	156	88	1,701	980	26,415	14,833
Eight months ending Feb. 29	1892	3,575,940	1,522,109	31,877	12,752	567,296	226,945	1,984	898	1,645	775	38,810	18,783	6,758,409	2,795,644
	1891	474,453	194,987	23,905	8,319	2,302	1,166	82	41	587	301	45,290	25,973	842,049	342,086
RYE—Bushels.															
Month ending Feb. 29.....	1892	641,069	665,989	51,279	46,228	.....	.....	20,436	19,889	33,400	26,350	.....	.....	787,516	799,011
	1891	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eight months ending Feb. 29	1892	5,495,304	5,481,617	156,669	135,217	.....	.....	885,799	852,216	415,950	358,644	167,168	146,401	9,495,408	9,120,421
	1891	308,627	194,611	.....	.....	.....	.....	.....	.....	.....	.....	14,285	8,800	322,912	203,411
WHEAT—Bushels.															
Month ending Feb. 29.....	1892	3,144,054	3,310,876	567,819	583,526	150,908	156,275	633,761	640,562	1,572,170	1,641,461	2,629,102	2,599,270	8,826,155	9,000,311
	1891	433,356	463,765	51,702	52,890	39,669	44,117	23,500	24,400	144,529	136,925	3,191,983	2,564,838	3,900,699	3,304,491
Eight months ending Feb. 29	1892	44,757,666	47,930,817	2,839,199	2,922,060	6,822,067	7,278,842	17,290,072	17,888,566	11,965,998	12,604,868	28,284,299	28,601,140	116,519,342	121,778,621
	1891	6,417,629	6,541,888	176,291	178,393	283,349	284,854	2,592,314	2,510,161	907,680	828,019	19,354,697	15,636,785	31,153,997	27,320,299
WHEAT—FLOUR—Barrels.															
Month ending Feb. 29.....	1892	451,984	2,131,309	137,543	688,772	201,994	1,010,133	281,586	1,443,467	48,720	208,353	189,682	654,473	1,413,752	7,026,880
	1891	342,749	1,602,828	97,236	474,431	46,682	226,284	148,647	795,378	3,355	16,792	162,967	647,243	850,750	4,067,637
Eight months ending Feb. 29	1892	3,105,708	14,988,440	1,097,004	5,424,920	1,055,574	5,242,890	2,103,019	11,005,740	169,389	509,140	1,109,535	5,328,539	9,573,183	48,183,851
	1891	2,234,067	10,526,844	900,973	4,550,942	486,664	2,230,391	1,543,821	8,068,981	22,520	110,253	1,269,253	5,012,445	6,929,833	32,958,527
TOTAL BREADSTUFFS.															
Month ending Feb. 29.....	1892	.....	7,596,528	.....	1,514,550	.....	3,025,970	.....	4,489,265	.....	2,673,566	.....	3,290,291	.....	23,850,990
	1891	.....	2,316,811	.....	621,286	.....	383,685	.....	1,010,335	.....	314,490	.....	3,245,912	.....	8,349,397
Eight months ending Feb. 29	1892	.....	80,367,890	.....	10,814,954	.....	17,908,979	.....	35,877,109	.....	15,075,200	.....	35,099,160	.....	210,087,464
	1891	.....	22,793,157	.....	5,958,063	.....	3,316,401	.....	12,163,489	.....	1,911,984	.....	20,968,761	.....	72,874,796
Two months ending Feb. 29	1892	.....	17,011,815	.....	3,030,114	.....	6,562,058	.....	10,836,448	.....	5,267,827	.....	8,296,428	.....	54,098,271
	1891	.....	4,646,309	.....	1,289,839	.....	937,530	.....	2,809,762	.....	556,533	.....	6,615,635	.....	18,068,583

## INSPECTED RECEIPTS AT CHICAGO.

According to the report of Chief Grain Inspector P. Bird Price the grain received at Chicago during the month of February was graded as follows:

## WINTER WHEAT.

Railroad.	White.				Hard.				Red.				No Grade.
	2	3	4	2	3	4	2	3	4	2	3	4	
C. B. & Q.....	2	2	17	76	27	38	1	.....	.....	.....	.....	.....	1
C. R. I. & P.....	2	2	55	7	39	41	1	.....	.....	.....	.....	.....	1
C. & A.....	1	.....	9	4	15	23	1	.....	.....	.....	.....	.....	1
Illinois Central.....	1	2	5	3	7	15	1	.....	.....	.....	.....	.....	1
Galena Div. N. W.....	.....	.....	2	.....	8	8	.....	.....	.....	.....	.....	.....	.....
Wis. Div. N. W.....	5	3	4	.....	52	13	.....	.....	.....	.....	.....	.....	.....
Wabash.....	.....	.....	4	1	7	7	.....	.....	.....	.....	.....	.....	.....
C. & E. I.....	.....	.....	1	3	5	2	.....	.....	.....	.....	.....	.....	3
C. M. & St. P.....	1	.....	2	3	68	8	2	.....	.....	.....	.....	.....	.....
Wisconsin Central.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
C. St. P. & K. C.....	.....	.....	9	.....	18	9	.....	.....	.....	.....	.....	.....	.....
A. T. & S. Fe.....	1	1	36	1	13	33	1	.....	.....	.....	.....	.....	.....
Through & Special.....	2	.....	40	32	126	36	7	.....	.....	.....	.....	.....	.....
Total each grade.....	6	12	131	181	247	286	214	.....	.....	.....	.....	.....	15
Total W. wheat.....	6	12	131	181	247	286	214	.....	.....	.....	.....	.....	15

## SPRING WHEAT.

Railroad.	2				3				4				No Grade.	White.	Mixed Wheat.
	2	3	4	2	3	4	2	3	4	2	3	4			
C. B. & Q.....	5	191	109	6	.....	111	2	.....	.....	.....	.....	.....	.....	.....	.....
C. R. I. & P.....	12	24	30	28	56	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
C. & A.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Illinois Central.....	97	24	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Galena Div. N. W.....	8	154	58	8	.....	16	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wis. Div. N. W.....	7	15	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wabash.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
C. & E. I.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
C. M. & St. P.....	124	310	24	31	.....	15	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wisconsin Central.....	69	32	20	2	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
C. St. P. & K. C.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
A. T. & S. Fe.....	602	448	24	4	.....	101	.....	.....	.....	.....	.....	.....	.....	.....	.....
Through & Special.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total each grade.....	924	1,109	274	46	28	302	6	.....	.....	.....	.....	.....	.....	.....	.....
Total Spg. wheat.....	924	1,109	274	46	28	302	6	.....	.....	.....	.....	.....	.....	.....	2,779

## CORN.

Railroad.	Yellow.		White.		2	3	4	No Grade.
	2	3	2	3				
C. B. & Q.....	29	264	1	52	9	334	308	17
C. R. I. & P.....	18	176	.....	5	227	641	365	20
C. & A.....	129	.....	15	2	119	9	.....	.....
Illinois Cent.....	155	358	68	106	52	210	297	9
Gal. Div. N.W.....	2	185	.....	10	1	428	720	35
Wis. Div. N.W.....	.....	2	.....	1	.....	2	1	.....
Wabash.....	30	120	15	41	7	64	11	1
C. & E. I.....	14	139	5	36	3	120	6	.....
C. M. & St. P.....	2	97	3	10	3	227	234	26
Wis. Central.....	.....	.....	.....	.....	.....	.....	.....	.....
C. St. P. & K. C.....	3	20	.....	.....	1	25	93	.....
A. T. & S. Fe.....	17	74	1	8	8	92	8	1
Thrh'g & Spl.....	71	315	3	20	62	231	18	1
Total each grd.....	341	1,879	96	304	375	2,493	2,070	101
Total corn.....	341	1,879	96	304	375	2,493	2,070	7,656

## OATS.

Railroad.	White.			
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### ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

### CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., MARCH 15, 1892.

## THE ELEVATOR MAN IS ALL RIGHT.

In the legislative investigation at St. Paul, Mr. Pillsbury in his testimony gave the elevator man a certificate of good character. Incidentally he also gave Mr. Pillsbury a little better certificate than the elevator man; but that can be allowed to pass. He said that none of the elevator companies with which he is connected was in any combine to depress prices; and that such combines were in the minds of newspaper men and agitators. "Country elevators," said Mr. Pillsbury, "deal with farmers fairly. I am surprised that so few actual short-comings have been exposed. I can prove that margins are much less than is generally supposed. In former years it was a profitable business. Of late years it has not been. There are too many elevators. I never knew a margin to exceed four cents."

And then Mr. Pillsbury gave some actual figures. The stock of elevator companies is generally upon the market. Dividends have been declared upon the stock. The dividend upon the Atlantic Elevator Co. was 10 per cent last year; it was 6 or 7 per cent the previous year. The Minneapolis Elevator Co. divides what it actually makes. The Minnesota and Dakota has paid no dividends in two years. Some of the figures submitted by Mr. Pillsbury were as follows: Minneapolis and Northern Elevator Co.'s statement showed for the year ending Aug. 1, 1889, an income of \$218,050.80; expenses, \$346,677.38; net loss, \$128,626.58; wheat handled, 3,418,606 bushels. For 1891, wheat handled, 4,853,000 bushels; earnings, \$269,415.85; expenses, \$155,768.25; net profit, \$113,647.60. The Minnesota and Dakota company handled for the year ending July 31, 1888, 935,000 bushels; profit, \$991.53; for 1889, 831,000 bushels were handled; loss, \$34,548.78; for 1890, wheat handled, 2,413,000

bushels; profit, \$36,198.95; for 1891, 2,475,000 bushels were handled; profit, \$29,001.93.

According to fellows like Donnelly, the elevator men all ought to be rich. The facts show the contrary, however.

### DELAY OF SHIPMENTS IN TRANSIT.

Since the last crop was harvested the losses suffered by grain shippers on account of unreasonable delay of shipments in transit have been heavier and more frequent than ever before, and the time is ripe for united action against the evil. Elsewhere in this issue we publish letters from a number of shippers, some of whom escaped loss by selling F. O. B. at point of shipment. But this way of selling does not abate the evil, it only shifts the burden to other shoulders. The buyers then suffer the loss and the grain trade of the country, both export and domestic is retarded and injured.

Eastern buyers and receivers are complaining just as bitterly as the Western shippers, but as yet no sufferer with nerve enough to sue carriers for damages has made his appearance. Recently several cars of corn arrived at Buffalo that had been on the way seventy-three days. The same dealer had two cars still unheard from that had been shipped from the West for Buffalo over 100 days before, not by the way of China, but by a direct route. Receivers at every Eastern market have suffered as seriously from just as egregious delays.

Such remarkable service is directly opposed to the interests of carriers, in that it discourages those in the trade, and blights the growth of the trade, thereby reducing the amount of freight to be handled. But the members of the trade are the most serious losers. Damages can be obtained for loss occasioned by carriers taking more than the usual time to transport grain. The expense of conducting suits and securing judgment can be materially reduced by combining and acting together. In some cases the loss is so small as not to justify the dealer in bringing suit alone. A number of decisions have been rendered which bear upon this point of unreasonable delay and we give several herewith:

Carriers may show in defense to a suit for failure to deliver freight promptly that they could not deliver it in shorter time, owing to interference with the operation of the road by strikers and their confederates. *International & G. N. R. Co. vs. Tisdale (Texas)*, 11 S. W. Rep. 900.

Where it appears that the usual time for transporting certain perishable goods, was six days and the time taken in transporting plaintiff's goods, which were of that character, was about eighteen days, a finding of negligence in the carrier will not be disturbed. *Jennings vs. Grand Trunk Ry. Co.*, 5 N. Y. S. 140.

To recover for common carrier damage for delay in performing the contract of carriage, the value of goods at the place of destination when they ought to have arrived should appear, and also their value when they did arrive; the difference between these values being the measure of damages; and to show when they ought to have arrived, the contract being silent, it should appear what length of time was usually required or was reasonably necessary to effect the transit. *Atlanta & W. P. Ry. Co. vs. Texas Grate Co. (Ga.)*, 9 S. E. Rep. 600.

In an action against a carrier to receive damages for loss of market, evidence of the statements of plaintiff's broker as to the state of the market is heresy, and inadmissible. *Vooheese vs. Chicago R. I. & P. Ry. Co.*, 30 N. W. 29, 71 Iowa 735.

In an action against a carrier for damages for failure to deliver peaches in time, whereby they were damaged, plaintiff's alleged that the defendant contracted to deliver the peaches in New York, which was denied by defendant, which claimed that its agreement was to deliver to a connecting line. The testimony of a plaintiff as to his experience in shipping peaches, and that he found it better to ship to New York by steamer, is admissible as tending to prove that the contract with defendant was, as claimed by plaintiffs, for a through shipment by steamer. *Central Railroad & Banking Co. vs. Skellie (Ga.)*, 12 S. E. 1017.

If the shipper promises the carrier to do something which will enable the latter to make the time of transportation shorter than it would be, and fails to perform his promise, such failure may be shown by the carrier in excuse for the delay, and that, too, without changing or modifying the contract of affreightment. *Illinois Cent. R. Co. vs. Miller*, 32 Ill. App. 259.

Some of our correspondents have suggested that a bill of lading in which the time for transporting grain to destination is limited should be demanded. Millers have long been talking

about just such a bill of lading, especially for export shipments, but they still accept the old bill of lading which promises nothing. A time bill of lading in which the carrier agrees to deliver grain or flour at destination in good condition within a stipulated time would facilitate the securing of damages from carriers and make them prompt in delivering shipments, but the same results can be brought about by a few suits at law for damages on account of delay in delivery.

A difference of opinion is shown as to what constitutes a reasonable time in transporting grain, and some who have had shipments long delayed for lack of cars or in cars at initial point show a disposition to be very lenient. Transportation at the rate of 100 miles per twenty-four hours from time cars are billed is generally conceded to be reasonable. Four miles an hour is not very fast traveling, but if cars are not transported at a lower rate shippers and receivers will not do much kicking.

### TRANSFERRING GRAIN.

The antique method of transferring grain from cart to car by shovels and the old fashioned way of sending it to storage elevators for transfer are still to be found at many railway terminals. Where the first named method is in force the grain is damaged by storm and scattered by the wind. It is the most expensive way known both for the carriers and the grain owner. The delay of cars alone, from which the carriers try to make believe they suffer so much, should be enough to prompt them to provide modern facilities for transferring grain. Much of the grain is damaged and all of it is delayed longer than it would be if first-class facilities were provided, but worse still, much of it is stolen or at least it is lost to the shipper. Every dealer knows that it is necessary in shoveling grain from car to car to throw from 5 to 10 bushels on the ground, or if not necessary it may be considered unavoidable or an accident. The men in charge of this work as well as those in charge of the grain transfer cars are not responsible for the delivery of all of the grain, so have not time to sweep out the car at time of transfer and put all of the grain together in one car, but afterward they find time to sweep the car clean and sell the sweepings. When grain is transferred by the old shovel method it is weighed upon track scales which are always reliable and in good condition despite of the fact that rain, snow and sleet falls upon the cars and the uncovered platform. The wind may blow hard against the cars, but as the car being weighed is not uncoupled from the others, the wind cannot make a difference of more than 1,000 pounds in the weight.

Grain sent to storage houses for transfer losses its identity and is reduced in bulk by docking each carload received for future shrinkage. When grain is transferred in this way, the carrier who took the grain to the terminal storage house loses the freight on from 500 to 1,000 pounds which is taken for future shrinkage. The shipper loses that much grain and may receive grain of inferior quality in return.

Why these old-time expensive methods of transferring grain are retained is not obvious, but both shippers and carriers are doubtlessly to blame. If shippers would persistently and vigorously demand the erection of modern grain transfer houses at terminals and junctions, it is likely that we would in the near future see the erection of a number of such houses. The near-sighted economical policy of some railroad managers prompts them to ignore the needs of their road for handling grain. Some of them may receive a commission of \$5 to \$10 per car for having grain transferred through certain storage houses, but pursue such a course only to save their road the cost of transfer elevators. Some railway managers have persisted in doing this way, although prominent elevator men have shown them conclusively that this was the most expensive for his road and at the same time offered to erect a first-class transfer house and



transfer all grain for 70 cents a car—only to be rejected.

These old-time methods are useful now, only as memorials of the past and should be laid aside. The grain trade is of sufficient proportions to merit the best handling facilities and it is high time carriers provided such. Self-interest should prompt grain receivers at terminals to work with the railway managers until transfer houses are provided. In case the receivers do not do this unsolicited, shippers should individually and collectively ask them to do it.

### THE DEATH OF A. J. SAWYER.

The death of Mr. Sawyer removes from the Northwest one of the men who have had much to do with its development. He was one of the men who by force of character, by enterprise and dogged perseverance, build up communities. He was a thoroughgoing man, modest, genial and honorable to a degree. One who knew him well says of him: "Mr. Sawyer, outside of and beyond his qualities as a business man, consummate organizer and strategic leader, was universally admired for his sterling integrity. This, with his indomitable pluck and perseverance, was the prevailing characteristic of his whole life. His associates in Minneapolis, as well as in Duluth, where he is even better known, all speak of this. There is but one sentiment among them on this point. Even his bitterest enemies had to acknowledge that hard though he fought he always fought square. No one ever questioned his integrity or the honesty and sincerity of his motives."

### NEW YORK'S ELEVATOR LAW IS CONSTITUTIONAL.

The New York law fixing the maximum rate for elevator charges which the elevator pool of that state has been trying to have the courts decide unconstitutional has at last been decided constitutional by the United States Supreme Court. This is in line with the decision of the same court on the Illinois law regulating charges.

The elevator pool resisted the law and claimed that it was an unwarranted interference with private business. The courts held that the elevators are a mere link in the chain of common carriers and should be brought under the same regulations. Although the decision is of interest to the grain trade of the entire country the boatmen of the Erie Canal have taken the principal part in the opposition to the pool.

Though contrary to the spirit and the letter of the law the pool will continue to bleed every shipper sending grain through its houses by refusing to receive grain for transfer. The law cut down the transfer charge from  $\frac{3}{8}$  to  $\frac{1}{8}$  of a cent per bushel, but the pool evades the law by forcing everything into store and charging  $\frac{1}{4}$  of a cent for the first ten days, the shortest period for which it will receive grain. The law providing for equitable elevator charges cannot be enforced so the octopus will continue to sap the grain trade until shippers seek other channels or the pool is destroyed.

### THE INTER-STATE COMMERCE LAW.

The interviews with grain shippers and men prominent in other lines of business, which are published elsewhere in this issue, show conclusively that the Inter-State Commerce Law is not being enforced. Shippers are charged with being favored by carriers and in view of the refusal of Charles Counselman to testify before the grand jury on the ground that he would incriminate himself, the charge may be considered good in the case of at least one grain shipper.

Even if certain large shippers are not getting rebates and receiving other favors from carriers, as is charged, it is settled that under the law as it now stands it is possible for them to be so favored. As a rule grain shippers are favorable to the spirit of the law and desire it amended so

that it can be enforced and discrimination against persons or places prevented as was originally intended.

Several of those charged with being favored shippers have denied the truthfulness of the charge and have given very plausible explanations of how they are able to pay higher prices than dealers buying on a comparatively small scale. In cases where discrimination can be proved the law can be enforced, otherwise it can not. That it must be amended to bring about the much desired results is shown by the repeated recommendations of the Inter-State Commerce Commission and the weak point exposed in the Counselman case.

### CHICAGO BUCKET SHOPS.

The bucket shop has had a grand revival in Chicago. While this city has never been wholly free from the evil, there have been times since the crusade in 1887, when the business of bucket shopping has been very precarious. At the present time, however, there are over a score of places in full blast, some of them run for the exclusive accommodation of "ladies." The number of such places indicates sufficiently the profitable character of the business done; but where all the dupes come from, will forever remain a mystery. A skin gambler's game is honor itself compared with the methods of most of the bucket-shop sharps.

There is a state law against bucket shops which ought to be enforced. The bucket shop is primarily responsible for the many erroneous ideas of grain speculation entertained by the people. It was not until the bucket-shop became popularized, that the outcry against boards of trade became so loud. These swindling concerns opened all over the land. Their methods were identical, it was claimed, with those in vogue on the regular exchanges, except that people with small means could speculate. The bucket-shops left ruin in their path, and the Hatch bill owes its existence to them rather than to the regular exchanges.

For, the bucket shop is an undeniable factor in depressing prices. The outside public speculates in only one way: by buying. The interest of the bucket shop keeper is to make the market go the other way. If the market is perverse, and goes up, the bucket-shops cannot help failing. The hundreds of bucket-shops are a positive influence to keep the market down; for they understand that an upward market seals their doom.

### TRYING TO SAVE THE ERIE CANAL

THE fight of the Erie Canal boatmen and the fair-minded people of New York, who wish to have the bulk of our export grain carried through that state to the seaboard, against the railroad elevator pool, has been transferred to the state legislature where bills have been introduced for the improvement of the canal and the erection of state transfer elevators at Buffalo and New York.

The state's management of the canal has not been progressive and no improvements of consequence have been made for years. The canal is far behind the needs of the time, the locks should be lengthened and the canal made at least ten feet deep. It is the low rates secured by the Erie Canal that has attracted much of the trade to New York City. When the influence of this rate depressor is removed by inaction on the part of the state, the grain trade especially will seek other channels.

Grain shippers are interested in low rates, in fact they must have them to compete in European markets. The lower the cost of transportation the more will they ship. Sentiment has no place in the grain trade, so if carriers can ship grain by other routes at a lower rate they will do so. The plan to overcome the pernicious work of the railroad elevator pool by erecting state transfer houses is not a good one. The state seldom does anything half as well as private enterprise, and always at greater cost. The poli-

ticians in charge would not seek to serve the trade but their own party. Much better and less expensive service could be secured by the erection of transfer elevators by private parties. The canal boatmen are better situated to operate such elevators to the advantage of themselves and the grain shippers than any others, and they should organize a company among themselves, and then they would be independent of the rail carriers and their elevators. The railroad companies have their agents at work against the bill, so it will probably be defeated, and the only course left for the boatmen is the one suggested.

### THE WHEAT INVESTIGATION.

The legislative investigation into the alleged combination of elevator men, millers and railroads has been proceeding at St. Paul in another session for some days. A mass of testimony has been taken, but the evidence of combination has been small. It has been shown that the profits of wheat handling have been small; and the fact has been developed that under the law the legislative committee has no right to inquire into the matter of prices. Charges that the railway companies have refused cars to independent buyers have been sustained by evidence, but it has not been proved that the companies were influenced to do this by any combination. Very little actual crookedness has been shown, a fact which Mr. Pillsbury commented upon. Of course, cases of injustice have been unearthed, but the startling things which the committee expected to uncover have not materialized, because they did not exist. The investigation was started to make capital, and has proved a good deal of a boomerang.

### TO EUROPE VIA CANADIAN CANALS.

The unsatisfactory service rendered the grain trade by the elevator pool at Buffalo and New York and its effective crippling of the Erie Canal together with the action of the Committee of Foreign Affairs of the House of Representatives in regard to the deepening of the Welland and St. Lawrence Canals has prompted Canadian statesmen to introduce bills providing that all canals on the St. Lawrence shall be deepened to twenty feet.

When lake vessels go to the Atlantic Ocean, which they will surely do in the near future, the grain shippers of America will be free from the grasp of the Buffalo pool, will have no transfer charges to pay at an inland point and will escape the heavy harbor charges at New York. Grain will then be transported from lake ports to the coast at much less cost, and as the mouth of St. Lawrence is several hundred miles nearer the United Kingdom the ocean rate would be less. Some of the lake vessels could cross the ocean, but at present few of them have room to carry enough coal for such a trip. That could be easily arranged and another handling of the grain at the seaport avoided.

### THE ANTI-OPTION BILL.

BUT little has been heard of Mr. Hatch's committee and the option bill, during the past two weeks. However, both Mr. Hatch and the members of his committee deny that the bill has been allowed to go to sleep. On the contrary, it announced on the best authority, that a bill of some kind will be recommended by the committee for passage in the House. The arguments presented by the different exchanges had considerable weight with the committee; but it is believed that they will nevertheless pass some sort of a bill, if only to solidify themselves with the farmers. All the members of the committee protest that they do not wish to interfere with legitimate trading, but merely to stop gambling; and therefore the bill when finally presented for passage may be depended on to be like the sportsman's gun: loaded so as to hit if it is a deer, and miss if it is a calf.



## Grain Dealers' Associations.

### KANSAS AND NEBRASKA GRAIN DEALERS' ELEVATOR ASSOCIATION.

*President*, MASON GREGG, Lincoln, Neb.; *Vice-President*, FRANK LOWER, Council Grove, Kan.; *Secretary*, W. T. CAYWOOD, Clifton, Kan.; *Treasurer*, O. A. COOPER, Humboldt, Neb.

### STATE GRAIN DEALERS' ASSOCIATION OF TEXAS.

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### GRAIN SHIPPERS' ASSOCIATION OF NORTH-WEST IOWA.

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### ILLINOIS GRAIN MERCHANTS' INSURANCE AND PROTECTIVE SOCIETY.

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*Committee on Claims*, W. B. NEWBIGIN, Blue Mound.

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*Legislative Committee*, J. W. McCORD, D. McALLISTER, E. W. SEEDS, E. C. WAGNER, W. A. HARDESTY, and E. C. BEACH.

## EDITORIAL MENTION

SEND us news of interest to the trade.

THE Missouri anti-pool law, in which millers and grain men are interested, has been declared unconstitutional.

J. L. OWENS & Co. of Minneapolis send us a handsome wall calendar adorned with illustrations of their grain and flax separators.

J. L. & H. W. HIGH, 123 North Third street, Philadelphia, manufacturers of combined engines and boilers, send us a very handsome calendar.

DO NOT permit small boys to go unaccompanied about your elevator. A well filled grain bin has an unmistakable attraction for small boys, and some are smothered in such every month.

EVEN the railroad managers in the Northwest have been charged with trying to regulate the price of wheat on their respective roads by compelling buyers to keep to "list price" under the penalty of being refused cars for shipment. The

demagogues and farmer agitators are evidently near the end of their rope or they would not try to regain support for a failing party by such weak claims.

STATISTICIAN DODGE still insists that the per capita consumption of wheat as food, is 4.665 bushels per annum. In his March report he assumes that the consumption from March 1, 1891, to March 1, 1892, is 300,000 for a population of 64,300,000.

GRAIN shippers who are opposed to the Interstate Commerce Law as it now stands should not fail to make known their views and suggest amendments by adopting resolutions when in convention assembled, and should make known their views in this journal.

NO ROAD entering Minneapolis now charges demurrage on grain held over a day for reinspection, provided the grade first given the grain is changed. The Great Northern was the last to give in, it having persistently held out against all entreaties of the receivers since last fall.

THE practice of burning grain elevators with the contents remaining to destroy all trace of petty thieving, is gaining favor with grain thieves in the Northwest. The roasting of a few of these rascals who add the crime of incendiarism to that of stealing would put an effective damper upon the practice.

THE Detroit Car Service Association has again issued a book of rules, to try and scare grain dealers into hastily unloading cars upon arrival, while the coal and lumber dealers are to be allowed to take their own time. The grain receivers of Detroit are not such chumps as to meekly submit to any such treatment.

ARE you thoroughly convinced that it is right, that it is just and fair, that you should be called upon to pay for delaying carriers' property and at the same time be compelled to bear all losses caused by carriers' delay in transit of your shipments? Think it over, and if you have any opinions on the subject or any remedy to offer, put the same in writing and send it to us, and we will publish it.

IF the storage rates in force at present at terminal markets are not sufficient to give the warehouseman a fair profit even after the shrinkage is deducted let the rates be advanced. It is not reasonable nor fair to make the owner of grain at the time it is placed in store bear the loss by expected shrinkage. The warehouseman should bear it or require the owner at time of shrinkage to pay for it in increased charges.

SHIPPERS have protested against shortages in grain shipments so persistently, so fiercely and vigorously, that carriers now deliver at terminal elevators all the grain that does not leak out of cars or is not stolen, and the elevator managers do not deduct for future shrinkage more than enough to pay the running expenses of the elevator. In most every case enough grain is left to pay the freight and commissions.

AT Chicago, where more grain is handled than any other commodity, some of the progressive rail carriers are still transferring grain to cars of Eastern lines by running their cars upon an elevated, uncovered track and shoveling the grain into the cars of the Eastern lines, which are placed upon a surface track beside the elevated track. When it rains, snows or sleets, the entire carload of grain may be thoroughly soaked, but of course it makes no difference to the owner and the railroad company enjoys it, as the grain weighs more and the freight is more. It may heat, and the miller or other receiver refuse to accept it, yet to all this the shippers along those lines raise no objection. The Grain Receivers'

Association of Chicago should hold a meeting, read over its constitution and find out what was the purpose of organizing.

KANSAS CITY has recently suffered from a grain blockade, caused principally by lack of handling facilities on several lines entering that city. When a shipper or receiver who has not ample handling facilities delays a car more than forty-eight hours he is charged demurrage. When a carrier delays grain more than sixty to 100 days from the same cause, the owner of the grain bears the loss and says nothing. What a difference!

ALL the prominent curb traders of the St. Louis Merchant's Exchange have signed a petition to the Board of Directors asking that the rules prohibiting trading after hours be enforced. A similar petition has been signed by members of the New York Produce Exchange, yet the trade continues. Such trading places the exchanges on a level with the bucket-shops and builds up opposition to the exchanges themselves.

IT has been claimed by some warehousemen that it would be impossible for them to make their deductions for shrinkage, when grain is taken from store, as no reliable table for docking grain could be compiled. The table which they are now following in docking grain when received seems to be reliable as far as the warehousemen are concerned, for they always have enough to cancel all certificates. How they dispose of the balance is not known to everyone.

THE January report of the Department of Agriculture gives the wheat crop of 1891 at 611,780,000 measured bushels. The average weight per measured bushel of the wheat of the eight crops immediately preceding the 1891 crop was 57.6 pounds. The March report of the Department gives the average weight per measured bushel of the 1891 crop at 58.5 pounds, which brings the crop up to a greater number of commercial bushels of sixty pounds each, than was expected. The crop according to the estimate of the Government was 596,485,500 commercial bushels.

STRENUOUS efforts are being made to establish a grain market at West Superior, Wis. For several years all the grain inspected at that point has been inspected by Minnesota state inspectors and according to the Minnesota rules governing inspection. Recently a board of trade was organized and soon North Dakota grades will be adopted and all grain received will be inspected according to those rules. The object being to attract shipments from that state. The first trade on the board was 7,500 bushels of North Dakota No. 1 hard at 4 cents above the market.

THE long expected movement of elevator men toward South Chicago seems at last to have commenced. Charles Counselman has taken the initiative, as announced elsewhere; and three other companies are said to be negotiating for dock property along the Calumet River, upon which to build elevators. This movement is easily explained. In the summer time Chicago River is almost impassable, while delays and towing charges are disastrous to profits. The Calumet River at South Chicago is wide and deep and the location suitable for elevators, lumber yards and the like.

THE Directors of the Chicago Board of Trade have recently rendered a decision by which a loss caused by inefficient service of carriers was forced upon buyers. During the blockade many carloads of grain were stored in special bins in Chicago elevators. Much of this grain had been bought by shippers with the understanding that it was to be transferred to Eastern roads. The market declined, and as buyers were unable to get the grain transferred, they refused to live up to their agreements. The Directors decided that as it was an unusual occurrence in which the



seller was unable to have the grain transferred the buyer should bear the loss.

AMONG our callers the past month was Mr. Henry L. Knight, superintendent of E. H. Pease Manufacturing Company, Racine, Wis. Mr. Knight reported business excellent.

THE grain trade at Philadelphia is monopolized by tramp steamers. At the Port Richmond Elevators in the past two years there has been but three sailing vessels loaded with grain.

IN our advertising columns this month will be noticed a new firm of elevator builders and contractors, Messrs. Whitson & Seckner, 3429 State street, Chicago. Both gentlemen have had long experience in this field.

It is rumored that B. P. Hutchinson has finally succumbed in New York, having lost all the money he made in the corn deal last fall. Should the rumor actually be verified, it will be a long time before timid brokers cease seeing the "finger of Old Hutch" in every unusual commotion in the grain pit.

OUR most excellent contemporary the *Corn Trade News* of Liverpool now issues a special weekly edition compiled for busy American dealers. It contains all reports and statistics of importance regarding the European trade. The matter is well selected, its arrangement convenient, and the information reliable.

MISSOURI'S Chief Grain Inspector, O'Shea, recently filed quo warranto proceedings in the State Supreme Court to oust the grain inspectors of the Commercial Exchange at Kansas City. The court has taken the matter under advisement and the Exchange inspectors continue to inspect the grain at that point, to the greater satisfaction of the trade.

MESSRS. J. N. ROBSON & SON, the well-known commission merchants of Charleston, S. C., write us that the future of that city is now practically assured. The East and West Shore Terminal Railroads are completed and the impediments in the bar now nearly removed. Charleston is now encircled with railroads; and with a fine harbor, deep water, cheap coal and other advantages, the great West will find its way to the sea through Charleston.

ADVICES from Northern Iowa have been received to the effect that the railroad companies have been granting a rebate of  $2\frac{1}{2}$  cents on every 100 pounds of grain shipped by the regular dealers, and at the same time have refused this rebate to co-operative societies, and the general opinion seems to be that such discrimination must be tolerated until the Interstate Commerce Law is amended. If discrimination can be proved, that will be sufficient to secure prosecution.

THE Monitor Separator, built by Huntley, Cranson & Hammond at Silver Creek, N. Y., is evidently becoming a very popular machine, as we are advised that among recent orders received by that firm was one from the Consolidated Milling Company, Minneapolis, Minn., for five No. 7 machines, one for eight No. 8 machines from Heidenreich & Co. for the 1,250,000-bushel elevator of Chas. Counselman, Chicago; and one for a No. 8 machine for the Kansas City Milling Company.

SEE to it that the farmers who bring grain to your market are supplied with good seed grain. It is to every country buyer's interest to encourage them to grow the best. Offer to supply them at a reasonable price and discourage their buying seed from the swindlers who travel about the country and have naught to lose, but everything to make on the one transaction. When reputable dealers who have an established busi-

ness at stake offer to supply seed at fair price farmers who know of it are not so likely to pay an exorbitant price to travelers for trash.

At last the reconsignment privileges on grain and its products have been granted by carriers to Kansas City, and shipments can now be stopped there and reconsigned. This makes Kansas City a much more advantageous point for collecting and distributing grain than it was before.

OMAHA'S open Board of Trade has discontinued its call and the men who thought they could make Omaha a great grain market by legislation, are discouraged. Warehouse and inspection laws only assist in building up the business of a central market. Superior advantages for collection and distribution, a large grain producing territory to draw upon, and buyers as well as sellers are necessary to a central market. It will be several years before the conditions will be such as to make it possible to do the large business at that point which they expected to obtain immediately by legislation.

JUDGE HORTON of this city has rendered a decision in the suit of Baldwin & Farnum against Lowitz, which passes upon the right of the directors of the Board to enforce the rules of the Board. Lowitz had been in the employ of Baldwin & Farnum and proposed to prove that they had defrauded customers by cross trades by introducing trading cards as evidence. Baldwin & Farnum got out an injunction to prevent Lowitz from using these trading cards before the Board of Directors. Judge Horton now dissolves the injunction and the Board of Directors can admit the trading cards as evidence or not, as they see fit.

THE statement so oft repeated that grain shippers are the slaves of the railway managers, and especially those who have only one road to ship over, seems to be gaining credence. The *Chicago Tribune* in referring to its interviews on the Interstate Commerce Law, says: "Shippers were extremely cautious about even making a complaint that they thought by any chance might reach the ears of railway officials. They knew from bitter experience what it meant to incur the enmity of the men in the management of railway property." If the men connected with the greatest shipping trade of the country cannot obtain just and fair treatment by simply asking for it, they should combine and demand it or secure it at law. This foreveracting in deference to the opinions and wishes of railway magnates, is unprofitable and foolish. It magnifies the railway manager's power in his own eyes, and encourages him to be severe upon his so-called slaves.

### PUTS AND CALLS.

ALONG with the bucket-shops, "puts and calls" must bear the blame of having given to the general public, thoroughly erroneous ideas of speculative dealings in grain. That such magnates as Russell Sage in New York and B. P. Hutchinson in Chicago have been known as wholesale dealers in these windy commodities, has only increased the confusion in the public mind. Privilege trading has been tolerated around the Chicago Board, though of course not on the floor, and has greatly increased the past two or three years. It is resorted to as insurance for deals made on the Board.

Now, however, the board of directors has determined to do what it can to stop it. It is announced that all trading, directly or indirectly, in puts and calls shall be deemed dishonorable conduct, and any member convicted of such conduct will be disciplined. Dealing in puts and calls is an offence under the laws of Illinois. The Chicago board should have acted sooner. The New York Produce Exchange has followed in the wake of the Chicago board and privilege trading placed under the ban. Puts and calls are indefensible from any point of view. Had privilege

trading and bucket-shops never existed, the outcry against future trading would not have occurred.

### ELEVATORS AT SOUTH CHICAGO.

The transfer noted last week of a piece of property on Harbor avenue, near Ninety-second street, South Chicago, by the Calumet and Chicago Canal and Dock Company to Charles Counselman for \$80,000, has more significance than would be indicated by the mere size of the transaction. Mr. Counselman, who is widely known in connection with the grain and provision trade and also as a man of wealth, will use this land as the site of a large elevator. Indeed the work of construction has already been commenced by the Heidenreich Company of Chicago, and Mr. Counselman proposes to have at that point a house with a capacity of 1,250,000 bushels. The cost of the improvement will be about \$250,000. Both land and building will be the property of Mr. Counselman, but his enterprise is related to the interests of the Rock Island road, which road, along with the Western Indiana Belt, will give him his rail transportation. The tracks of these two concerns are on the northern boundary line of his property.

The reasons moving Mr. Counselman to take this step are those which have often been spoken of by grain men as likely to push them to that part of Chicago. The Chicago River and all the avenues of approach to the grain elevators in this city are so badly crowded, and the houses are on such valuable land, that it is uneconomical to operate them where they are. More room and quicker transportation are an absolute necessity. The trade has often looked toward South Chicago as the point which will afford them the desired relief, but this move of Mr. Counselman is the only strong one that has yet been made. Mr. Counselman will have a frontage of 600 feet on the Calumet River, with abundant dock facilities and transportation, and he proposes to have a railroad yard there, where he can if necessary accommodate 300 or 400 cars at a time. He considers that he has a very valuable piece of property in this purchase and that the improvement which he proposes to put in and the business which he proposes to centralize there will make the land itself worth in a few years two or three times what it has cost him. It was on account of the proposed improvements that the Canal and Dock Company consented to sell him the land at such a price, which is on all sides considered to be low. This figure is, however, several thousand dollars in excess of the price at which the property was inventoried on the company's books. The land, having a frontage of 600 feet on the river and about 680 feet on the railroad, averages in width about 500 feet, the shape of the lot being somewhat irregular. The area of the land is thus about 300,000 square feet, or a little less than seven acres. The property is, however, more properly measured by the foot, and by frontage on the river the rate of sale is \$133 per foot.

This movement by Mr. Counselman will probably be the beginning of an important migration of the elevator business to that vicinity. Leading men in the business have seen the thing coming for a long time, but it has been slow. South Chicago offers facilities for the rapid handling of grain which are not to be found along the Chicago River.

### SCREENINGS.

Futures on the New York Hop Exchange cannot be expected to be otherwise than irregular and unsteady.

One of the teachers recently asked a pupil what lbs. stood for. "Elbows, I guess," was the unexpected reply.

There appears to be trouble in the ranks of the Michigan Patrons of Husbandry because the editor of the official organ persists in not spelling "used" "youred" and "just" "goust" as sent in by the president of the order. One of the first objects of the Patrons of Husbandry is to put down the arrogance and impertinence of an officious press.

The recent debate in Sorosis on woman suggests the way in which a somewhat similar question was settled by a Kansas debating society. It was a big corn year, and so the society proposed for discussion the double question, "What shall we do with our girls and our corn?" After a thorough consideration the following conclusion was arrived at: "We will feed our corn to our girls and marry our girls to our boys."



# ELEVATOR AND GRAIN NEWS

Sherman, S. D., wants a grain dealer.

An elevator is wanted at Rolette, Minn.

A grain elevator is needed at Collegeville, Minn.

A starch factory is to be built at Newport, Neb.

A starch factory may be built at Rushville, Neb.

A grain elevator will be erected at Childress, Tex.

A farmers' elevator will be built in Thurston county, Neb.

W. T. Satterfield, grain dealer at Waterloo, Neb., has sold out.

The new elevator at Stockton, Ill., has been placed in operation.

John Bauernschmidt is building a brewery at Baltimore, Md.

The building of a brewery has been proposed at Rushville, Neb.

The farmers' elevator at Brock, Neb., has been opened for business.

A company to build an elevator and mill is talked of at Sydney, Neb.

Wm. Hill & Co., grain dealers at Nebraska City, Neb., have sold out.

Some improvements have been made on the elevator at Daykin, Neb.

A linseed oil mill is wanted at Watertown, S. D. A bonus will be given.

An elevator and flour mill is being built at Pleasant Hill, O., by Reed & Co.

The Nebraska City Elevator Company of Nebraska City, Neb., has sold out.

A. F. Wayland, dealer in grain and groceries at Cleburne, Tex., has sold out.

T. Haynes & Son, grain dealers at Waukesha, Wis., have dissolved partnership.

J. J. Everingham & Co., grain dealers at Omaha, Neb., have dissolved partnership.

Two of the proposed new elevators at Kansas City, Mo., are being constructed.

An elevator is talked of by the farmers in the vicinity of Macdonald Station, Man.

Atkins & Son, grain dealers at Osceola, Ia., have been succeeded by E. A. Atkins.

R. J. Reid, grain dealer at Bradgate, Ia., has been succeeded by W. H. McCullum.

Jaques & Douglas, dealers in grain and feed at Ottawa, Ont., have dissolved partnership.

An elevator company is being organized by the farmers in the vicinity of Pender, Neb.

Jacob Weschler of Erie, Pa., is rebuilding his malt house, which was recently burned.

George B. McLean's grain elevator at South Byron, Wis., was recently destroyed by fire.

Allan Butlerbaugh, a grain buyer at Andale, Kan., eloped March 6, with a farmer's wife.

E. W. Lockwood & Son, grain dealers and millers at Nevada, Ia., have sold out for \$3,000.

The City Brewing Company has been organized to build a brewery at Jeffersonville, Ind.

Kidd & Booth, dealers in grain and feed at Petersburg, Va., have dissolved partnership.

Groff, Trille & Co., grain dealers at Atlantic City, N. J., failed recently. Liabilities, \$65,000.

The Omaha Brewing Company is building an elevator, malt house and brewery at Omaha, Neb.

The Phoenix Mills Distillery Company has been incorporated at Chicago, with \$25,000 capital.

W. R. Buchanan, grain dealer at Mt. Union, Ia., has been succeeded by E. A. & A. W. Miller.

Grannis & Palmer, grain dealers at Mankato, Minn., have been succeeded by Hubbard & Palmer.

W. H. Gowdy, dealer in grain and coal at Corwith, Ia., has been succeeded by W. H. Gowdy & Co.

Fort Dodge, Ia., sent a carload of grain for the Russian famine sufferers to New York, March 2.

At a meeting of the Winnipeg Grain Exchange held recently, the matter of getting the railway companies to carry seed grain free between points in Manitoba was discussed.

Correspondence with this object in view has been begun with the railway officials.

The American Elevator Company has been incorporated at Milwaukee, Wis., with \$500,000 capital stock.

Babbitt & Evans, dealers in grain and farm machinery at South Bend, Neb., have dissolved partnership.

The Cantwell & Ryan Eagle Brewing Company has been incorporated at Chicago with \$75,000 capital.

Barham & Owens, grain commission dealers at Norfolk, Va., have been succeeded by W. R. Barham.

An elevator will be opened at Clear Lake, S. D., by the Davenport Milling Company of Davenport, Ia.

James S. Rowe of Wilton, Ia., will put in a boiler and engine to drive the machinery of his grain elevator.

Fulghum & Johnson of Nashville, Tenn., who recently suffered loss by fire, have resumed business.

An elevator will be built at Long Pine, Neb., by the merchants of the town and the farmers in its vicinity.

The large annex to the elevator at Fort William, Ont., has been completed and placed in successful operation.

The Matheson Trading Company, dealing in grain, feed, coal and lumber at Waukesha, Wis., has sold out.

A site for the proposed farmers' elevator at West Superior, Wis., is being negotiated for by Thomas Ulver.

Four grain buyers have established themselves at Oxton, Man., a new town on the Canadian Pacific Railway.

W. H. Cowgill of Cooper, Cowgill & Co., grain dealers at Holdrege, Neb., has retired from the partnership.

C. C. Rogers & Co., grain commission dealers at Milwaukee, Wis., have been succeeded by E. J. Furlong & Co.

The corn cribs in Knox county, Neb., are full and thousands of bushels are piled on the ground at Creighton.

William Lidd of Tompkinsville, Richmond Co., N. Y., will build an elevator and meal mill on Staten Island.

A 20,000 bushel elevator has been built and started at Harrisville, Mich., by the Harrisville Roller Mill Company.

The Moore Grain and Elevator Company has been incorporated at Kansas City, Mo., with \$50,000 capital stock.

John Holzworth, dealer in grain and live stock at Harper, Ia., has been succeeded by Holzworth, Gregg & Valerius.

J. A. Campbell & Son of Lincoln, Neb., designers and builders of grain elevators, are building a house at Geneva, Ia.

The Spencer-Kellogg Elevator & Milling Company has been incorporated at Buffalo, N. Y. A large elevator will be built.

An addition is being built to the the farmers' elevator at Neepawa, Man. It will contain bins for coarse grains, and a chopper.

An elevator is being built at Palmyra, Neb., by J. A. Campbell & Son, designers and builders of grain elevators, of Lincoln, Neb.

Spiers & Barnum, grain dealers and proprietors of a general store at Pekin, Ia., have been succeeded by Spiers & Patterson.

The Mississippi Cotton Oil Company has been incorporated at Meridian by John A. Lewis, R. W. Millsaps and W. W. George.

A sale of 18,000 bushels of corn was recently made at St. Louis for shipment to Mexico, where a drouth caused the loss of the last crop.

The J. H. McBrayer Distilling Company has been incorporated at Frankfort, Ky., by J. H. McBrayer and others. Capital \$300,000.

The Chase Elevator Company of Chicago is building an elevator at Warren, R. I., for parties whose elevator was burned some time ago.

The brewers of Canada want the excise duty on malt abolished or materially reduced, claiming that the present rate is injuring the trade.

A malt house and brewery is being built at Kewaunee, Wis., by Walner & Deda, on the site of the brewery which was burned January 10.

The elevators at Ohiowa, Neb., shipped during the month of January 2,651 bushels of wheat, 1,801 bushels of oats and 68,580 bushels of corn.

New York has exported since September 1 and up to February 20, 64,551 bags of clover seed, against 62,300 bags for the same period of 1890-91.

A dozen new firms have entered the grain trade at Kansas City, and several Chicago firms have established branch houses there during the last year.

Everything points to an active grain movement during the coming season, and from present appearances there will be no lack of stuff to fill all the grain space on the first steamers arriving at this port after the opening of navigation, as we understand that large engagements of heavy grain have been made for May and June shipment.—*Trade Bulletin, Montreal.*

The Bourbon Elevator Company has been incorporated at Bourbon, Ind. Capital stock, \$24,000; incorporators, J. L. and H. G. Thayer and G. D. Ettinger.

Rocky Ford, Col., has two grain warehouses, which handle corn, oats, hay and alfalfa seed, besides an elevator operated in connection with a flour mill.

An elevator to be called the Chicago will be built on the harbor at Buffalo, N. Y. Its capacity will be 1,500,000 and it will cost, it is reported, \$1,000,000.

M. C. Lightner & Co. and Rumsey & Latta, grain commission dealers at Chicago, have formed a partnership under the firm name of Rumsey, Lightner & Co.

The Velasco Elevator Company has been incorporated at Chicago. Capital stock, \$60,000; incorporators, William H. Harper, C. B. Farwell and R. T. Perry.

A grain commission company has been organized at Milwaukee, Wis., with \$25,000 capital, by Alexander Berger, William Sanderson and Robert Nunnemacher.

The Security Grain Company has been organized at Minneapolis, Minn. Capital stock, \$50,000; incorporators, L. A. Coff, H. D. McCord and G. B. Gunderson.

A receiver has been appointed for the Iowa, Minnesota and Dakota Elevator Company in the person of C. E. Braden, cashier of the Metropolitan Bank at Minneapolis, Minn.

The Union Elevator at Buffalo, N. Y., is being overhauled and reconstructed by the Lackawanna Railway, so as to have rail connection and a capacity of 125,000 bushels.

At Baltimore, February 9, 539,909 bushels of corn were loaded, and during the twenty-four hours a total of three-quarters of a million bushels of corn were handled.

William McLeod, grain dealer, and George Etherington, dealer in farm machinery at Brown City, Mich., have formed a partnership under the firm name Etherington & McLeod.

A rush of wheat at Frederick, Md., blockaded the grain warehouses February 23. At 10 o'clock A. M. the farmers wagons extended in a line three squares long and two or three abreast.

The Texas & Pacific Railway has awarded the contract for building a 350,000-bushel elevator opposite New Orleans, La., to James Stewart & Co., designers and builders of grain elevators.

The firm Gibson & Co. has been incorporated at Chicago to deal in grain and provisions. Capital stock, \$100,000; incorporators, Thomas Gibson, Oliver R. Stratton and Robert L. Warren.

The Ivesdale Grain Company has been incorporated at Ivesdale, Champaign Co., Ill. Capital stock, \$3,000; incorporators, T. J. Cannon, Michael Loftels, John Toohy and M. Grennin.

An elevator will be built at Philadelphia to accommodate the export grain trade of the Baltimore & Ohio Railway Company which will begin the work of construction at an early date.

The Barnett & Record Company, architects and builders of grain elevators of Minneapolis, Minn., have been awarded the contract for the buildings of the Daisy Roller Mills at Superior, Wis.

Kansas wheat has averaged less than 56 pounds per bushel. F. P. Miller of Pratt says that he has handled 200 cars of wheat this year, and it has not averaged more than 56 pounds.

The farmers who have not sold their barley yet are complaining that the grain buyers will not buy. We infer from this that the barley business has not been profitable this season.—*Durant (Ia.) News.*

The storage capacity at Kansas City has been increased until it now amounts to 4,000,000 bushels. Two old private elevators have been opened for business and additions have been built to two others.

The Little Rock Grain Company has been incorporated at Little Rock, Ark., to carry on a general grain business. Capital stock, \$25,000; president, T. J. Darragh; and Frederick Kramer, Jr., secretary.

For the weeks ending February 13 and February 20 377 and 287 cars of wheat respectively were inspected at Winnipeg, Man., a total of 664 cars, against 693 cars for the corresponding two weeks last year.

The Willford & Northway Manufacturing Company of Minneapolis, Minn., is furnishing the Minneapolis Brewing & Malting Company with the necessary malt mills and machinery for an immense brewery.

Edward Green, an elevator man and storekeeper at Laketon, Ind., disappeared March 7. A decline in wheat caused him a heavy loss and he is over \$10,000 in debt. He is believed to have committed suicide.

A few months ago the boats laden with grain from Maryland and Virginia could find no elevator at Baltimore at which to unload, owing to the heavy receipts from the West at that time. It has been proposed that a small elevator be built to accommodate this trade in the



future; and it has also been suggested that \$25,000 be appropriated by the Maryland Legislature to convert one of the now empty state tobacco warehouses into a corn and wheat storehouse.

W. P. Rempel & Bro. of St. James, Minn., have dissolved partnership, B. Rempel remaining in the grain and lumber trade at Butterfield, while W. P. Rempel continues in the grain trade at St. James.

William F. Drackford has been arrested in New York City on the charge of embezzling large sums of money while in the employ of Davis J. Drackford & Co., grain dealers of Liverpool, Eng., who failed in 1885.

Smith & Richardson, proprietors of the Diamond Iron Works at Minneapolis, Minn., will furnish the machinery for the elevator being built at Gladstone, Mich., for the Soo Railway, to replace the one burned last fall.

Toledo has received since September 1 and up to February 27, 61,810 bags of clover seed and shipped 60,371 bags, against 69,794 bags received and 69,760 bags shipped in the corresponding period of 1890-91.

The destitute wife of E. L. Harper, who wrecked the Fidelity Bank at Cincinnati, was recently given \$20,000 by a decision of the Circuit Court, February 27, that a note given by Ammi Baldwin to Harper was good.

The Reading railway has promised the Philadelphia Commercial Exchange as low rates from Erie and Buffalo as New York has. As a result, the grain merchants of Philadelphia expect to do some business this summer.

Smith & Love, grain buyers at Beloit, Wis., failed February 13, owing \$2,000 to E. P. Bacon & Co. of Milwaukee, and much more to Chicago firms. Their trouble was caused not by speculation on 'change but by continued losses.

The bad failure of Keener & Pike, grain dealers at Jacksonville, Ill., made penniless many persons who had deposited their savings with the firm. To the most needy of these \$12,000 was generously distributed February 26 by the father of Mr. Keener.

The Manitoba department of agriculture has arranged a system by which the farmers can exchange seed wheat free of charge. The grain will be carried by the railways, without cost, to and from a central warehouse in Winnipeg where a competent man will have charge.

The Columbia Starch Manufacturing Company, recently incorporated at Chicago, will build a factory in Dade county, Florida, at Lemon City. The raw material is found in the county plant, which grows luxuriantly in that region and furnishes a sort of sago starch.

The Frye Grain Company of Rochester, N. Y., has been incorporated with \$75,000 capital stock. Elmer E. Frye, who started the business in 1885, is secretary and treasurer, and the directors are George S. Ewart, Groveland, N. Y., Mr. Frye, Dean Alvord, S. A. Newman and G. A. Carnahan.

The unfinished "Sun Elevator" at Kansas City, Mo., was burned at 5 o'clock on the afternoon of March 10. Very little work had been done on the building but the materials and machinery scattered around, valued at \$25,000, were entirely destroyed. Insurance, \$17,500. A prairie fire was the cause.

The National Rice Milling Company has been incorporated at Trenton, N. J. Capital, \$5,000,000; incorporators, Edward V. Douglass, Thomas H. Wentworth and E. O. Keasby. The company's charter gives it practically unlimited power under the liberal laws of New Jersey, and it is said that a rice trust is to be formed.

When Harper, the grain gambler and wrecker of the Fidelity Bank at Cincinnati, O., was sent to prison, it was supposed that his wife had secreted large sums; but during a trial in court at Cincinnati, February 12, it came out that Mrs. Harper has been compelled to sell her personal property to support herself and her two young children.

Iris Bailey has for many years bought grain and operated an elevator at Adrian, Ill., but failed and did little until a year ago, when he began to store grain for farmers for whom he had 20,000 bushels in store. It was recently discovered that only 1,300 to 1,500 bushels were in the building, and no one knows what has become of the remainder.

All of the thirteen rice mills in New Orleans have been sold to a trust which will keep in operation only four, the New Orleans Rice Milling Company's, Socola's, the Planters', and Ernst & Co.'s. The trust proposes to regulate the values of clean rice and keep them at one price, within the price of foreign rice, and regulate the New Orleans market with the foreign markets.

The suit of E. W. Dane against Pressey, Wheeler & Co., at Minneapolis, Minn., has been decided by Judge Mahoney in favor of the defendant, who claimed that the deal in grain was fictitious and a wager on the rise or fall of the price of wheat in the Chicago market, a gambling contract, contrary to public policy, illegal and void; and under the common law money lost in gambling could not be recovered.

At a meeting of the stockholders of the Baker Elevator Company at Baker, Ill., February 15, four of the directors—Kukuk, Francis, Thompson and Flaherty—offered to buy the shares of any dissatisfied persons at par value. The offer was accepted and then the elevator, which was not yet completed, was leased to Thompson & Anderson for two years at six per cent. on the cost and the insurance, although twenty per cent. was offered

by other parties. During the week following the elevator did a good business and by Saturday night had taken in 11,480 bushels of corn and oats. M. J. Flaherty and David Rogers are in charge.

The Evans Linseed Oil Company of Indianapolis, Ind., has since the beginning of the last crop year manufactured 6,000 barrels of oil, 6,000 tons oil cake and several hundred tons of oil meal, for which 300,000 bushels of flaxseed was required. The oil cake and meal is shipped over the whole country, and very little is exported to foreign countries which formerly furnished the only market for these by-products.

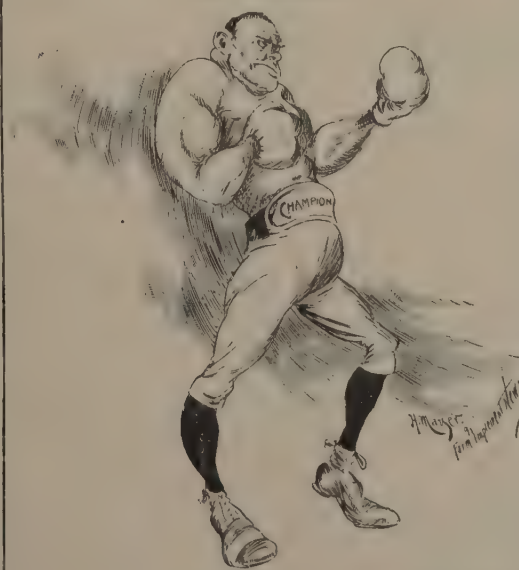
Foss, Strong & Co. have begun suit in Judge Adams' court in Chicago against S. A. Brown and F. E. Parish for \$105,000 due on contracts made in an attempt to corner May corn in 1888, with the understanding, it is claimed, that Foss, Strong & Co. had the power to keep back large quantities of corn in the hands of Western farmers. The attempt failed, and defendant refused to pay. Suit was brought and judgment obtained for \$80,000. But an appeal was taken and the decision reversed, and the case is again being litigated.

Counselman & Co. are building a large elevator on the Calumet River between Ninety-second and Ninety-third streets, Chicago. The Heidenreich Company of Chicago, has the contract, and work has been begun. The building will have a concrete floor and a dock frontage of 1,400 feet. Two Buckeye Engines of 300-horse power each have been purchased for the power plant, and eight Monitor Grain Cleaners, four Pease Oat Clippers, and eight 1,000-bushel hopper scales have been bought for the equipment. The elevator is to be completed by July 1.

The Northwestern Farmers' Protective Elevator Company of Grand Forks, N. D., which is about to build an elevator at West Superior, Wis., has a capital stock of \$200,000, divided into shares of \$25 each, non-assessable and non-transferable except to members of the Northwestern Farmers' Protective Association, not more than fifty shares to be held by one person. The new elevator will be used chiefly to provide storage for wheat shipped by members of the association. A general meeting will be held June 28. The directors are Ole O. Haugerod, Grafton, N. D.; H. H. Strom, Hillsboro, N. D.; Andrew Steenerson and Levi Steenerson, Climax, Minn.; W. J. Anderson, Thomas Ulver, Ole H. Brenna and John O. Fadden, Grand Forks; A. O. Heglie, Walcott; Ole Aune, Fertile, Minn., and A. Brathwell, Dwight, N. D.

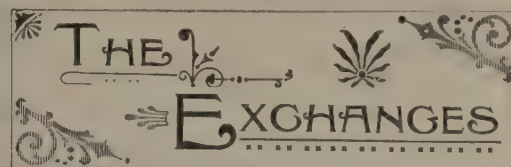
The Star Elevator Company and O. H. Ermentrout of Minneapolis, Minn., are defendants in a suit for \$65,000 damages begun by Thomas J. Thompson. On August 12 the Star Elevator annex collapsed and crushed Thompson's feed mill adjoining, which caught fire and was burned. It is charged that the elevator was poorly constructed, unsafe and overloaded, but Mr. Davis, its manager, says that 15,000 bushels had been shipped out from the 60,000 bushels in store the day before. The feed grinding business as conducted by Mr. Thompson must be very profitable, for he claims to have been making \$1,000 each month in profits, and that in the six months since the accident he has instead of clearing \$6,000, suffered a loss of \$4,000. He therefore asks \$10,000 to cover his loss for that period, besides \$30,000 for prospective profits, \$5,000 for tools and fixtures and \$20,000 for machinery and stock. The fire insurance companies refused to make good the loss on the ground that it was not caused by fire.

#### BELT POWER.



—Courtesy Farm Implement News.

Profiting by our experience with the imported pest, the English sparrow, some near-sighted bird fancier recently imported a number of starlings and established a colony on Long Island which fortunately was destroyed by a blizzard. The starlings are voracious grain consumers.



Tickets of membership in the New York Produce Exchange are still ruling at \$900.

The St. Lou's Merchants' Exchange has appointed Marcus Bernheimer, Wallace Delafield and John Kauffman commissioners to negotiate for a site for a new exchange building.

The New York Produce Exchange has allowed the private wire houses to renew their leases, but they are forbidden to send out the quotations received by the private wires from Chicago.

The grain committee of the New York Produce Exchange has reported against dealing in put and calls; and the rules of the Exchange prohibiting dealing in privileges will be strictly enforced.

A Board of Trade will soon be reformed at West Superior out of the present organization. Secretary George has sold nearly all of the 100 memberships which are to be disposed of before the reorganization.

The Chicago Board of Trade recently settled a dispute between I. N. Ash and W. W. Hunter growing out of the grain blockade on the railroads by which some corn, intended for Eastern markets, was forced into the elevators by the Western roads.

At the time that the price of wheat fell, February 10, on account of news from Washington regarding the Anti-Option Bill, H. V. Lester was buying largely on the Chicago Board of Trade, and T. E. Sullivan claimed to have sold him 50,000 bushels, but a dispute arose which was settled by the directors of the Board.

The directors of the Baltimore Corn and Flour Exchange met February 8 and re-appointed the grain inspectors. The committee on transportation is Blanchard Randall, Thomas Leishear and T. Burling Hull. The clover seed committee is composed of F. W. Lahusen, Joseph O. Linton and Thomas Johnston.

Chicago is enjoying a holiday, and when Chicago adjourns the rest of us may as well do so. We are doing but little business. We get no refreshing showers of news from our Chicago friends, which frequently tend to mellow the ground and make an outgrowth of trading. The soil is dry to-day and the crop of business light.—Toledo Market Report, February 12.

A party sent by the Philadelphia Commercial Exchange visited Buffalo recently to inspect the transfer facilities for the grain trade. The delegation consisted of E. A. Hancock, Walter F. Hagar, Warner R. Howell, Edgar G. Thomas and Samuel Bell, Jr. The inspection showed a satisfactory state of affairs, and that Philadelphia would be benefited by closer relations with Buffalo.

Of late years future contracts for the purchase of hops have been made by brewers to a very considerable extent; but when the New York Hop Dealers' Exchange authorized future dealing among members the brewers were much exercised and condemned the dealers for doing what they themselves had been doing, and for engaging in a branch of trade which wished to monopolize.

The Chicago Board of Trade has refused to allow trading in privileges in the building and this prohibition has caused a falling off in the deals, as traders are not disposed to stand out in the cold alley between the Rialto and the Board of Trade building. Another reason for the decline in puts and calls is, that more than a score of prominent commission houses have united in a written statement that they will not do any put and call business and have notified their customers to that effect.

Members of the Chicago Board of Trade are reminded that late repentance will not avail them against the absurd clamor of fanatics. Their adjournment of speculation in puts and calls to the alley near the Rialto will not soften the hearts of millers bent upon better buying facilities nor upon Congressmen seeking farmer votes by foolish legislation. The gentlemen of the Board of Trade should pursue the even tenor of their way. Spasmodic virtue is not attractive to outsiders.—Chicago Times.

A motion was made in Judge Horton's court March 1 to dismiss the injunction procured by trading Baldwin & Farnum to restrain Elick Loutz from using cards in evidence at a trial before the directors of the Chicago Board of Trade for the expulsion of the firm. Baldwin & Farnum's attorneys moved the injunction as against the Board of Trade be dismissed, but charged Loutz with attempting to levy blackmail in the sum of \$10,000 from Baldwin & Farnum. The Board's attorneys showed that by the agreement entered into in obtaining membership the Board had the right to try its members for expulsion. Loutz denies that he ever attempted blackmail and alleges that Baldwin & Farnum "conducted a business of peculating and stealing from their customers compared to which highway robbery, having no fiduciary relation connected with it, would be a highly moral occupation."



## NEW YORK GRADES.

The grades of grain established by the committee on grain, of the New York Produce Exchange, in accordance with the grain rules are as follows:

## WINTER WHEAT.

Extra White Winter Wheat shall be bright, sound, dry, plump and well cleaned.

No. 1 White Winter Wheat shall be sound, dry and reasonably clean.

No. 2 White Winter Wheat shall consist of sound white winter wheat unfit to grade No. 1.

No. 3 White Winter Wheat shall consist of sound white winter wheat unfit to grade No. 2.

No. 1 Red Winter Wheat shall be sound, dry, long berried and well cleaned.

No. 2 Red Winter Wheat shall be sound, dry and reasonably clean, weighing not less than 58½ pounds, Winchester Standard, and shall not contain over 10 per cent. white wheat.

No. 3 Red Winter Wheat shall consist of sound winter wheat unfit to grade No. 2 Red.

Extra Red Winter Wheat shall be sound, dry and clean, weighing not less than 59½ pounds to the measured bushel, Winchester Standard.

No. 4 Winter Wheat shall include all reasonably sound winter wheat unfit to grade No. 3 Red.

No. 2 Hard Winter Wheat shall consist of the hard varieties, and shall be sound, dry and reasonably clean, and weigh not less than 60 pounds to the measured bushel, Winchester Standard.

No. 3 Hard Winter Wheat shall be reasonably sound and reasonably clean, unfit to grade No. 2 Hard, but weighing not less than 57 pounds to the measured bushel.

No. 4 Hard Winter Wheat shall include all reasonably sound and reasonably clean hard winter wheat unfit to grade No. 3.

Mixed Winter Wheat shall be all white and red wheats mixed, and shall be equal to No. 2 Red in all other respects.

Steamer Winter Wheat. Wheat which shall be equal in all respects as to quality to the above grades, but which shall be slightly soft or damp, shall have the word "Steamer" prefixed to the grade.

Rejected Winter Wheat shall include all merchantable winter wheat unfit to grade No. 4.

(NOTE.—All No. 1 Red and No. 2 Red Wheats that grade Steamer shall be graded Steamer No. 2 Red.)

## SPRING WHEAT.

No. 1 Northwest Spring Wheat shall be sound and well cleaned, and weighing not less than 58½ pounds to the bushel.

No. 2 Northwest Spring Wheat shall be sound and reasonably clean, and weighing not less than 56½ pounds to the bushel.

No. 3 Northwest Spring Wheat shall be sound and reasonably clean, unfit to grade No. 2, but weighing not less than 53½ pounds to the bushel.

NOTE.—The grades of Northwest wheat are to include such wheats as are grown in the Northwest, and to correspond, as far as practicable, in color and general character with the Milwaukee and Duluth grades.

No. 1 Spring Wheat shall be sound and well cleaned, and weighing not less than 58½ pounds to the bushel.

No. 2 Spring Wheat shall be sound and reasonably clean, and weighing not less than 56½ pounds to the bushel.

No. 3 Spring Wheat shall be sound and reasonably clean, unfit to grade No. 2, but weighing not less than 53½ pounds to the bushel.

No. 1 Hard Spring Wheat must be sound, bright and well cleaned, must contain not less than 75 per cent of hard Scotch Fife, and weigh not less than 58 pounds to the measured bushel.

No. 1 Northern Spring Wheat must be sound and well cleaned, and must contain not less than 50 per cent. of the hard varieties of spring wheat.

NOTE.—It is to be understood that minimum test weight of this grade shall not be less than 57 pounds to the measured bushel.

No. 2 Northern Spring Wheat must be sound, reasonably clean and of good milling quality.

NOTE.—This grade to include all wheat not suitable for the higher grades, and to weigh not less than 56 pounds to the measured bushel.

Steamer Spring Wheat. Wheat which shall be equal in all respects as to quality to the above grades, but which shall be slightly soft or damp, shall have the word "Steamer" prefixed to the grade.

Rejected Spring Wheat shall include all merchantable spring wheat unfit for No. 3.

## STATE WHEAT.

State Wheat shall be sound, bright, well cleaned, and free from any damaged or sprouted wheat.

NOTE.—"State White Wheat" is intended to include New York State Wheat.

## CORN.

No. 1 White Corn shall be sound, dry, plump and well cleaned; an occasional straw-colored grain shall not deprive it of this grade.

No. 2 White Corn shall be sound, dry and reasonably clean, but in berry and color may be slightly inferior to "No. 1 White Corn."

Yellow Corn shall be sound, dry, plump and well cleaned; an occasional white or red grain shall not deprive it of this grade.

No. 2 Corn shall be mixed corn, sound, dry and reasonably clean.

Old No. 3 Corn shall be mixed corn, dry, reasonably clean, but inferior in quality to that described as No. 2.

Low Mixed Corn shall be sound, dry, reasonably clean, but in color unsuitable to grade "No. 2 Corn."

Steamer Corn shall include corn of the above named grades in quality; in condition it may be slightly soft or damp, but must be cool.

NOTE.—The Steamer Grades are "Steamer White," "Steamer Yellow," and "Steamer Mixed," there being no grade of "Steamer Low Mixed" Corn.

No. 3 Corn shall include all corn, soft, damp, not damaged, but inferior in quality to that described as "Steamer Corn."

Rejected Corn shall include all corn not warm, that is unfit to grade No. 3.

Round State White Corn shall be sound white corn grown in this state.

Round State Yellow Corn shall be sound yellow corn grown in this state.

## OATS.

Extra White Clipped Oats shall be bright, sound, plump, well cleaned, and reasonably free from other grain, weighing not less than 38 pounds to the measured bushel.

No. 1 White Clipped Oats shall be bright, sound, well cleaned and reasonably free from other grain, weighing not less than 36 pounds to the measured bushel.

Oats that otherwise would grade Extra White Clipped and No. 1 White Clipped, shall not be deprived of the grade if but slightly stained.

No. 2 White Clipped shall be reasonably sound, well cleaned and reasonably free from other grain, but may be stained, weighing not less than 34 pounds to the measured bushel.

No. 3 White Clipped Oats shall be mainly white, reasonably sound, reasonably clean, and reasonably free from other grain, weighing not less than 30 pounds to the measured bushel.

Extra White Oats shall be bright, sound, reasonably clean and free from other grain, weighing not less than 32 pounds to the measured bushel.

No. 1 White Oats shall be bright, sound, reasonably clean, and free from other grain, weighing not less than 31 pounds to the measured bushel.

No. 2 White Oats shall be seven-eighths white, and equal to No. 2 Oats in all other respects, weighing not less than 28 pounds to the measured bushel.

No. 3 White Oats shall be mainly white, reasonably sound, reasonably clean, and reasonably free from other grain, weighing not less than 25 pounds to the measured bushel.

No. 1 Oats shall be bright, sound, and reasonably clean, and free from other grain, weighing not less than 31 pounds to the measured bushel.

No. 2 Oats shall be reasonably sound, reasonably clean, and reasonably free from other grain, weighing 28 pounds and over to the measured bushel.

No. 3 Oats, all merchantable oats unfit for any of above grades, shall be graded No. 3.

Rejected Oats, all oats, damp, unsound, dirty, or for any other cause unfit for No. 3, shall be graded, rejected.

## RYE.

No. 1 Rye shall be sound, plump and well cleaned.

No. 2 Rye shall be sound, reasonably clean, and reasonably free from other grain.

Rejected Rye shall include all damp, musty or dirty rye, or which for any cause may be unfit to grade No. 2.

## BARLEY.

No. 1 Bright shall be of a bright, natural color, plump, sound and well cleaned, weighing not less than 49 pounds to the measured bushel.

No. 1 Canada Barley shall be of a bright, natural color, plump, sound and well cleaned, weighing not less than 48 pounds to the measured bushel.

No. 2 Canada Barley may be slightly stained, otherwise sound, reasonably clean, weighing not less than 47½ pounds to the measured bushel.

No. 3 Canada Barley shall be sound, fit for malting, that will not grade No. 2 or better.

No. 1 State Barley, four-rowed, shall be of a bright, natural color, plump, sound, and well cleaned, weighing not less than 48 pounds to the measured bushel.

No. 2 State Barley, four-rowed, shall be plump, sound, reasonably clean, but may be slightly stained, and weighing not less than 46½ pounds to the measured bushel.

No. 3 State Barley, four-rowed, shall be sound, reasonably clean, fit for malting, otherwise unfit for No. 2, and weighing not less than 44 pounds to the measured bushel.

No. 1 State Barley, two-rowed, shall be of a bright, natural color, plump, sound and well cleaned, weighing not less than 49 pounds to the measured bushel.

No. 2 State Barley, two-rowed, shall be sound, reasonably clean, but in color not good enough for No. 1, weighing not less than 48 pounds to the measured bushel.

No. 3 State Barley, two-rowed, shall be sound and fit for malting, but in color and cleanliness unfit for No. 2.

Rejected Barley shall be such as is for any reason unfit for No. 3.

No. 1 Western Barley shall be plump, bright, sound, clean and free from other grain, weighing not less than 48 pounds to the measured bushel.

No. 2 Western Barley shall be sound, bright, not plump enough for No. 1, reasonably clean, and reasonably free from other grain, weighing not less than 48 pounds to the measured bushel.

Extra No. 3 Western Barley shall be the same as No. 2

Western Barley in all respects, except as to color, which may be dark.

No. 3 Western Barley shall include shrunken or otherwise slightly damaged barley, weighing not less than 44 pounds to the measured bushel.

Rejected Western, all Western barley which is damp, musty, or from any cause is badly damaged, or largely mixed with other grain, shall be graded Rejected Western.

## PEAS.

No. 1 White Canada Peas shall be bright, sound, plump, well cleaned, and free from bugs, but may have slight admixture of gray or green peas.

No. 2 White Canada Peas shall be bright, sound, reasonably clean, and reasonably free from bugs, and may admit of a greater admixture of gray, green and dead peas than grade No. 1.

No. 3 White Canada Peas shall include all peas inferior to the grade of No. 2.

NOTE.—Canadian Grain should be graded in accordance with above standards, but in consequence of being in bond, must be kept separate.

## NOTICE.

No grades will be established for heated or unmerchantable grain of any kind; therefore such grain, when inspected, will be treated as provided in "Rule 8" of the Rules of the Railroad Companies, as contained in their agreement with the New York Produce Exchange.



Issued on February 16, 1892.

MEANS FOR INDICATING THE DISCHARGE FROM OR INTO HOPPERS.—Frank H. Briggs, Cleveland, O. (No model.) No. 468,970. Serial No. 391,011. Filed April 29, 1891.

GRAIN CAR DOOR.—John Pearson, Pullman, Ill. (No model.) No. 468,894. Serial No. 397,157. Filed June 22, 1891.

CONTROLLING SPOUT FOR GRANULATED MATERIAL.—John W. Griswold, Troy, N. Y. (No model.) No. 468,870. Serial No. 396,264. Filed June 15, 1891.

CENTRIFUGAL GRAIN SIFTER AND SORTER.—Friedrich Berg, Sagnitz Castle, Livland, Russia. (No model.) No. 468,863. Serial No. 397,909. Filed June 26, 1891.

PNEUMATIC CONVEYOR.—Louis Schutte, Philadelphia, Pa., and James B. Ladd, Baltimore, Md.; said Ladd assignor to said Schutte. (No model.) No. 469,175. Serial No. 394,362. Filed May 28, 1891.

Issued on February 23, 1892.

SEED CLEANER.—Robert W. Jessup, Alameda, assignor to Elizabeth W. Jessup, Los Angeles, and Eugene F. Rogers, Santa Barbara, Cal. (No model.) No. 469,252. Serial No. 394,427. Filed May 23, 1891.

POWER TRANSMISSION FOR GRAIN ELEVATORS.—Eyvind L. Heldreich, Chicago, Ill. (No model.) No. 469,421. Serial No. 358,968. Filed July 16, 1891.

CORN SHELLER.—George N. Josi, Lancaster, O. (No model.) No. 469,523. Serial No. 405,293. Filed Sept. 10, 1891.

Issued on March 1, 1892.

BALING PRESS.—Alphonso A. Gamble, Griswold, Ia. (No model.) No. 469,737. Serial No. 373,623. Filed Dec. 4, 1890.

GRAIN SEPARATOR.—William H. Schulte, Hopedale, Ill. (No model.) No. 469,827. Serial No. 411,470. Filed Nov. 10, 1891.

DRIER FOR CEREALS.—Paolo Borgarelli, Turin, Italy. (No model.) No. 469,849. Serial No. 383,435. Filed April 10, 1891. Patented in Switzerland, March 26, 1891, No. 3,421; in England March 23, 1891, No. 5,486; in Belgium April 15, 1891, No. 94,328; in Italy April 22, LVII, 444, XXV, 29,315; in Spain June 26, 1891, No. 11,961, and in France July 16, 1891, No. 212,398.

GRAIN SCOURING, POLISHING AND SEPARATING MACHINE.—George E. Russell, Memphis, Tenn.; Charles S. Russell, administrator of said George E. Russell, deceased. (No model.) No. 470,077. Serial No. 387,961. Filed April 7, 1891.

Issued on March 8, 1892.

HAY PRESS.—John A. Hayes, Rogers, Ark. (No model.) No. 470,488. Serial No. 406,158. Filed Sept. 18, 1891.

DELIVERY APPARATUS FOR PNEUMATIC GRAIN CONVEYORS.—Frederick E. Duckham, London, England. (No model.) No. 470,555. Serial No. 403,175. Filed Aug. 20, 1891. Patented in England July 29, 1890, No. 11,884; in France March 28, 1891, No. 212,422, and in Belgium March 28, 1891, No. 94,320.

GRAIN DRIER AND VENTILATOR.—Walter R. Vanderveer, McCool Junction, and Charles F. Shedd, Fairfield, Neb. (No model.) No. 470,607. Serial No. 399,456. Filed July 14, 1891.



## Fires, Casualties, Etc.

L. G. Belew, grain dealer at Pilot Point, Tex., suffered loss by fire recently.

A grain elevator at Cheneyville, Ill., was burned February 12. Loss \$25,000.

W. T. Roberts & Co., grain dealers at Decatur, Ill., suffered loss by fire recently.

R. W. Sherritt, grain dealer and hotel proprietor at Allerton, Ia., recently suffered loss by fire.

Borders' Sons' distillery at Cincinnati, O., was burned recently. Loss \$30,000; insurance \$15,000.

M. Bruggeman's brewery at St. Paul, Minn., was burned March 4. Loss \$110,000; insurance \$80,000.

E. Schroeder's grain elevator at Crown Point, Ind., was burned recently. Loss \$5,000; insurance \$1,500.

Martin Herr, while at work on the "Union Elevator" at Buffalo, N. Y., recently, was killed by a falling wall.

C. W. Thomas' elevator at Phillips, Neb., was burned at night February 20. Loss \$11,000; insurance \$2,500.

J. W. Lambert & Co.'s grain elevator at Ohio City, Ohio, was recently burned. Loss, \$5,000; insurance, \$3,000.

Lawrence Wigle, 13 years of age, jumped into a grain bin at Essex, Ont., February 29 and was smothered to death.

A. L. Hurtubise & Co., dealers in grain and hay at Montreal, Quebec, had their stock damaged by water recently.

W. W. Swepston's corn crib at Crawfordville, Ark., containing 600 bushels of corn and six tons of cottonseed was destroyed by an incendiary fire March 1.

W. A. McHenry's elevator and feed mill at Denison, Ia., was burned on the evening of February 16. Loss \$5,000; no insurance on building or contents.

The elevator of the Farmers' Co-operative Association at Boswell, Ind., was burned March 1, together with the Lake Erie & Western Railroad depot. Insured.

A grain warehouse at Hamilton, N. D., owned by Henry Snell, was burned February 5, with 2,500 bushels of wheat belonging to Charles Blom, who had no insurance.

An elevator at Dugdale, Minn., owned by the Minneapolis & Northern Elevator Company, was burned at night February 18, together with 17,000 bushels of wheat. Loss \$15,000; insured.

Robert McCrory's grain warehouse at Alexandria, Minn., was burned February 20, with 1,200 bushels of wheat. Loss \$2,200; no insurance. Grain thieves are supposed to have started the fire.

A grain house and elevator at McKinney, Tex., was burned March 10, with 10,000 bushels of wheat and 2,000 bushels of corn. Loss, \$35,000; insurance, \$20,000. The property was owned by the North Texas Mill & Elevator Company.

John Mote, a boy 9 years old, fell into a wheat bin in Elward & Adams' elevator at Lagro, Wabash Co., Ind., February 25, and was suffocated before he could be taken out. No blame is attached to any one connected with the elevator.

The Cochrane Cotton Seed Oil Mill at Rock Hill, S. C., was burned March 7. Loss on building and machinery, owned by the Rock Hill Cotton Seed Oil Company, \$35,000, and on the stock, owned by the Cochrane Company, \$13,000.

Jacob Deam's elevator at Pottsville, Pa., was burned on the night of March 4. John Drescher, who occupied the building, lost 1,000 bushels of oats, 300 bushels of corn and several hundred pounds of flour, valued at \$2,000; partly insured. The fire started in a dwelling near by and spread to the elevator.

The elevator and feed mill at East Deerfield, Mass., owned by S. S. Sprague & Co. of Providence, R. I., were burned February 25. The large warehouse, 45x600 ft., was saved with its contents, 90,000 bushels of grain, but the elevator, 40x150, the mill and the engine room were burned. The buildings were erected in 1890. Loss \$100,000.

W. C. Jamison, a grain commission dealer of Kansas City, Mo., was seriously injured internally by a street car, March 2. He was standing on the foot board of a cable car when he lost his hold, fell off and was struck as the rear end of the car swung around the curve. He was taken to the hospital where he lies in a critical condition. Mr. Jamison has long been in the grain business and has always been popular.

The Kansas City Lead & Oil Works at Kansas City, Mo., were burned at 1 o'clock A. M. March 3. The building, a four-story structure, 120x180 ft., was totally destroyed together with 100,000 gallons of oil, and 50,000 bushels of seed. An immense tank containing 100,000 gallons of oil, valued at \$32,000 was saved by the

fire department. Loss on stock \$75,000; on buildings \$30,000; on machinery \$60,000; insurance on stock \$66,000; on buildings \$20,000. The establishment was owned and operated by the National Linseed Oil Company, and included besides the burned buildings and oil tanks, a large storage elevator containing 100,000 bushels of flaxseed. The Kansas City Hay Press Company's factory in close proximity fortunately escaped destruction. The origin of the fire is not known, but may have been incendiary or due to spontaneous combustion.

## ITEMS FROM ABROAD

Italy imported during the last five months of 1891 800,000 quarters of wheat and flour.

The West Indies imported during the six months ending January 31 1,145,000 quarters wheat and flour.

Sweden, Norway and Denmark imported 500,000 quarters of wheat and flour in the last five months of 1891.

A decree is expected removing the prohibition placed on the export of rye from the Caucasus region of Russia.

Portugal imported 3,480,000 bushels of wheat in 1890, of which 3,184,000 bushels were from the United States.

The United Kingdom, during the six months ending January 31, imported 11,880,000 quarters of wheat and flour.

A belief is growing that the stocks of wheat in Russia, even in the famine districts, is much larger than the first estimates.

Torreon, Mexico, has received 150,000 bushels of corn to be distributed among the starving people of that section of the state of Durango.

Portugal has granted traders permission to import 60,000 tons of wheat at a reduced duty of 1½ reis per kilo (2 cent per 2.20 pounds).

Germany, Holland and Scandinavia have imported such enormous stocks of corn that the importation of wheat may be expected to decline.

No grain of any kind can be shipped from Russia until the new crop is harvested. Odessa has imported 6,000 tons of grain from Roumania.

Austria-Hungary imported in December 26,000 quarters of wheat and flour, and in the last half of the year 381,000 quarters of wheat and flour.

A difference of opinion exists in France regarding the date when the reduced tariff on wheat expires, whether May 1 or June 1. A bill has been introduced asking for an extension.

Switzerland in the last quarter of 1891 imported 480,000 quarters wheat and 53,000 quarters flour. More than half the wheat came from Russia, the United States shipping only 2,000 quarters.

Australia is not shipping as much wheat as last year, owing to the poor crop. Recently there were vessels loading 600,000 bushels in South Australia and Victoria while at the same time last year 4,800,000 bushels was being loaded.

France imported in January 748,000 quarters wheat and 79,000 240-pound sacks of flour and exported 17,000 quarters wheat and 35,000 sacks flour. Since August 1 the net imports have amounted to 8,402,000 quarters wheat and 156,000 sacks flour.

India exported during the week ending March 5 780,000 bushels wheat, of which 300,000 bushels went to the United Kingdom and 480,000 to the continent; against 160,000 bushels for the corresponding week of 1891. Since April 1, 50,694,000 bushels have been exported, against 25,220,000 bushels for the corresponding period of 1890-91.

Germany, Belgium and Holland imported in last five months of 1891 2,489,000 quarters rye and rye flour and consumed, it is estimated, 2,300,000 quarters. The imports of barley and oats in the same time were 3,019,000 quarters and the estimated consumption, 2,850,000 quarters, leaving a surplus of about 169,000 quarters. Germany has commenced importing corn for the season and during the last five months of the year 1891 imported 936,000 quarters and consumed, it is estimated, 858,000 quarters.

Denmark imported in 1890 189,000 quarters wheat, 355,000 quarters rye, 163,000 quarters oats, 83,000 quarters barley, 606,000 quarters of corn, 24,000 sacks of wheat flour and 32,000 sacks of rye flour, against, for 1889, 312,000 quarters wheat, 462,000 quarters rye, 330,000 quarters oats, 87,000 quarters barley, 240,000 quarters corn, 23,000 sacks wheat flour and 19,000 sacks rye flour. The exports in 1890 were as follows: Wheat, 140,000 quarters; rye, 24,000 quarters; oats, 6,000 quarters; barley, 202,000 quarters; corn, 50,000 quarters; wheat flour, in sack of 240 pounds, 143,000 sacks, and rye flour, 18,000 sacks; against 82,000 quarters wheat, 25,000 quarters rye, 1,000 quarters oats, 216,000 quarters barley, 16,000 quarters corn, 167,000 sacks wheat flour and 23,000 sacks rye flour.

## CROP CONDITIONS.

KENTUCKY.—Wheat not as good as a year ago; has not stood out. Some late wheat not up, but so far no reports of killing.

MISSOURI.—Wheat has improved. Some anxiety is felt as to the effect of the cold wave. There has been little grain moving, but as soon as the roads are in condition the movement will be free.

OHIO.—While the wheat does not show up as well on the ground as a year ago, it is still in fair condition. Too soon yet to say what effect the blizzard of the present week has had upon the present crop.

IOWA.—Prime reports that spring seeding has not yet commenced; ground is too wet. Roads are in bad condition, and nothing doing at present. Light grain receipts until after corn planting is over. Oats have been sold close.

TENNESSEE.—The wheat fields are just beginning to green up, and wheat is small for the season of year and thin on the ground. The early sown wheat, which is about one-third of the crop, looks well. Millers carrying very light stocks.

SOUTHERN MICHIGAN.—Prime reports that there is more or less snow on the wheat to-day. The general condition of the crop is not equal to one year ago. It does not cover the ground as well, and there are some reports of winter killing.

KANSAS.—Martin Mohler, secretary of the Kansas State Board of Agriculture, says: The indications are that the earliest spring in many years is likely. Farmers in many places are already sowing oats and barley, which is unusual for February. He says that farmers are plowing in almost every county in the state, and in fact there has only been about two weeks of this winter when a rustling Kansas farmer could not plow. If the present favorable weather continues all crops will be in the ground a month earlier than usual.

MICHIGAN.—The Michigan monthly crop report for March says that although 40 per cent. of the correspondents report injury to the wheat plant during February, it is believed to be in average good condition; 1,366,123 bushels were reported marketed in February, and 11,216,818 bushels for the seven months, August to February, which is 48 per cent. of the crop of 1891, and 1,166,498 bushels in excess of the same period one year ago. The amount marketed in February was 385,075 bushels in excess of the amount in January.

CALIFORNIA.—Advices from San Francisco state that telegrams received March 5 from 100 correspondents in California show that rains have been general throughout the state. It is estimated that a larger acreage has been sown to wheat than ever before, and the present outlook is for the largest crop in the history of the state. The grain crop, however, yet depends upon the rains in April and the absence of hot "northerns," so that it is too early to base predictions as to the probable grain yield for the year, though the present outlook for a large crop could not be more favorable.

KANSAS.—Prime reports that in Northern Kansas, while the wheat is not so forward as it was last year at this time, the weather until recently has been favorable, and all the late sown wheat seems to be coming up. In Southern Kansas wheat does not begin to show up as it did last year at this time. Much of the late wheat is not up yet. But most of the reports are that it is still alive, but in a tender condition and in no way to withstand any bad March weather. On account of heavy rains very little plowing has been done. There was a large area of land plowed last fall, and during the winter will be seeded, as soon as dry enough, with oats.

ILLINOIS.—In his crop report of March 11 Prime says: In Southern Illinois the wheat has improved much in appearance during the last thirty days, and some of my reports show that the prospects are better than a year ago. While the wheat is not as rank in growth, yet it is stooling finely and in better shape to stand hard treatment from the severe weather. Farmers are not selling, but the roads are in no condition for delivery. Millers are about out of wheat. Farmers have nearly twice as much as a year ago. Central Illinois also reports a general improved condition in the winter wheat crop over last month. The late sown wheat has generally come up well. Farmers have been holding more on account of the bad condition of country roads than anything else. They are now inclined to sell freely.

INDIANA.—In Northern Indiana the general condition of the winter wheat crop is poorer than a year ago. It has gained some strength during the winter, but it bears no comparison this spring to what it was a year ago. There has been more or less freezing and thawing weather lately, which has caused considerable injury to the wheat on clay ground. Country roads are simply horrible. If they were in condition farmers would haul considerable wheat and sell at present prices. In Central Indiana the wheat covers the ground fairly well, and nearly all the late sown wheat is up. Very few reports of winter wheat killing. Farmers are not near so much inclined to hold wheat as they were sixty days ago. The amount of wheat in farmers' hands is much larger than at this time a year ago. In Southern Indiana some wheat covers the ground fairly well, but the most of it does not. The wheat has been growing nicely until the recent freeze. Farmers have been free sellers for the past thirty days.



## Latest Decisions.

### Right of Stoppage in Transitu.

While the shipper of goods has always the right, upon sufficient grounds, to order the return of the goods to him before their delivery to the consignee, that right is personal and does not extend beyond the original parties. Where the bill of lading has been transferred for a valid consideration and in good faith, the right of stoppage in transitu is defeated, and if a railroad company redeivers the goods to the shipper then it is liable to the legal holder of the bill of lading for his damages.—*Mo. Pac. Ry. Co. vs. Heidenheimer, Supreme Court of Texas, 17 S. W. Rep., 608.*

### Delivery—Inspection of Indorsements.

In the case of Adella S. Hills, the United States District Court of the Eastern District of New York decided that where a vessel arrives at her port of discharge and no owner appears to claim her cargo, if the master puts it in store subject to the order of the owner when discovered, that constitutes a delivery sufficient to sustain an action against the cargo for the freight. And when the owner appeared, and presented a bill of lading issued to order and conveyed to him by indorsement the ship has a right to inspect the indorsements with reference to their genuineness.

### Stoppage in Transitu in California.

As the California Code declares that all the title to the freight which the first holder of a bill of lading had when he received it passes to every person to whom it is subsequently indorsed, in good faith and for value, in the ordinary course of business, with like effect and in like manner as in the case of a bill of exchange, the holder of the bills of lading received in good faith from the buyer of them under an agreement to apply the proceeds of the sale of the goods to the payment of prior advances made by the holder to him, can hold the goods against the lien of right of stoppage in transitu of the seller for the purchase price of the goods.—*Sheppard vs. Newhall, United States Court, California, 47 Fed. Rep., 469.*

### Demurrage Under Agreement for Quick Dispatch.

Where a charter party makes no provision with reference to the number of lay-days, but provides that they shall commence from the time the master reports himself ready to discharge the cargo, and provides for a suitable berth and quick dispatch in discharging, the charterer is liable for demurrage for detention of the vessel two days after notice from the master.—*Mott vs. Frost, District Court of the United States, Eastern District of South Carolina, 47 Fed. Rep., 82.* Shippers of grain by lake to Buffalo should be careful not to accept bill of lading including provision for dispatch in unloading. The greedy Buffalo elevator railroad pool, in its effort to get all grain away from the Erie Canal, is likely to cause a blockade at any time.

### Overcharge for Carrying Freight.

A railroad company is required to charge, on inter state traffic and on traffic within states which have statutes to that effect, a just and reasonable rate for the carriage of freight, and the fact that the charge is contained in its printed schedule and is charged to all for the same service is not evidence of its justness and reasonableness. On the question as to whether or not a charge is reasonable, the opinion of a person who has no knowledge or experience in the adjustment of freight charges is not admissible in evidence. The fact that the rate for one commodity is twice that for another, which is similar in its nature and is shipped in the same cars, may be considered by a jury in determining whether or not the higher rate is unjust or unreasonable.—*Little Rock & Ft. Scott Ry. Co. vs. Bruce, Supreme Court of Arkansas.*

### Mortgage on Crop to Be Sown.

In the crop mortgage case of the Walter A. Wood Reaping Machine Company vs. the Minneapolis & Northern Elevator Company the Minnesota Supreme Court decided in favor of the defendant, reversing the decision of the lower court. In his opinion, Judge Vanderburgh holds: "A mortgage in advance of the crop to be sown and raised on the land of the mortgagor will be treated as an executory agreement to mortgage, and will take effect when the crop is sown, but the property mortgaged must be capable of identification, as in other cases. A chattel mortgage of 40 acres of wheat to be grown on a quarter section described, but where no particular 40 acres is designated, and a tract of 75 acres, parcel of the quarter section, instead of 40 acres, is sown, does not take effect as a mortgage of any part of the 75 acres, and is void for uncertainty of the description.

### Carriers' Failure to Deliver.

Sayles' Civil St. Tex., Art. 4227, which provides for the negligent detention of property beyond the time necessary for its transportation, a railroad company shall pay all the damages sustained and 5 per cent. per month on the value of the property at the time of shipment, does not repeal by implication Article 4258a imposing on the company a penalty for refusal to deliver goods on

payment or tender of the charges as shown by the bill of lading. No depot was maintained at M., and it was the custom to deliver freight for that place from the depot at T., the conductors of the freight trains acting as freight agents at M. The tender of charges and demand for goods should be made at T., where the goods were retained, and the penalty imposed by Article 4258a was incurred by refusal to deliver at T.—*St. L. & T. Ry. Co. vs. McKee, Court of Appeals of Texas, 15 S. W. Rep., 45.*

## OBITUARY

William H. Johnson, grain dealer at Logansport, Ind., is dead.

James Wood, of James Wood & Son, hay dealers at Lebanon, N. Y., is dead.

Walworth Pattison, an old grain dealer of New York City and a member of the New York Produce Exchange, died recently of liver complaint. His genial disposition and business integrity gained him many personal and business friends.

E. W. Coleman of E. W. Coleman & Co., grain dealers of New York City, died February 20, aged 80 years. Mr. Coleman was highly esteemed by his fellow members of the Produce Exchange. The business will be continued by Messrs. Parish and Clark, his partners.

Samuel A. Sawyer, of Sawyer, Wallace & Co., grain dealers of New York, died February 23, aged 72 years. In 1853 he went from the South to New York and founded the firm of Sawyer, Wallace & Co., which wound up so disastrously a year ago, with liabilities of \$2,000,000.

Henry S. Carpenter, an old grain dealer of Joliet, Ill., died March 5 from softening of the brain, at the age of 66 years. He shipped the first car of corn out of Joliet, where he has been in business since his arrival there in 1848. He was the first shipper to send grain east over the Michigan Central railway. Mr. Carpenter built many elevators, and in his day has shipped an immense quantity of grain, being well-known everywhere as the "Corn King of the West."

John Payne, a prominent grain dealer of Stratford, Ont., died recently in Houston, Tex., heart-broken on account of his failure in business. He had gained a good reputation during the years he bought grain in Stratford, and was looked upon as an upright and honest citizen. Speculation in wheat had brought him to the verge of ruin when, January 11, he went to Buffalo, N. Y., hoping to tide over his difficulties, but the market went down and left him stranded. Without hope, Mr. Payne went to New York, thence by steamer to Galveston, Tex., and finally, ill with worry, he stopped at Houston, where he died. He left a family.



Conway W. Ball has been reappointed chief grain inspector by the Buffalo Merchants' Exchange.

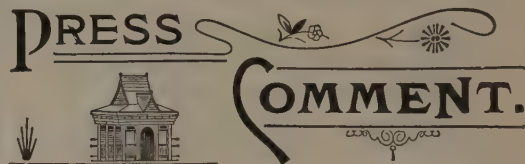
Oldknow Pooley, for many years a grain dealer on the Buffalo Merchants' Exchange, has quit the grain trade and gone to California where he will start in the fruit-growing business with a legacy of \$25,000 left him by relatives in England.

M. De Puy, New York: "I am a permanent subscriber for the AMERICAN ELEVATOR AND GRAIN TRADE as long as I am on earth."

The farmers of McLean county, Ill., are at work upon a plan to contribute a whole train-load of twenty-eight cars of shelled corn to the suffering people of Russia and the entire amount, about 12,000 bushels, will be made up within ten days. There are thirty townships in the county, so that but 400 bushels is required from each. The Big Four and the Alton both offer to transport the grain free of charge.

Now that the grain blockade in Boston has been raised, vessels there have been begging for freight. It is feared that owing to the heavy losses sustained by the late prolonged grain blockade in Boston, Canadian grain shippers will fight shy of that port in future unless the authorities there can give some guarantee that dealers will not again experience the drawbacks they have been subjected to in the past.—*Montreal Trade Bulletin.*

There is some prospect of the agreement among the private wire houses against privilege trading going to pieces. There have been some evidences that certain of the ground floor private wire concerns have been indirectly doing the business again. The week's experience seems to be a new proof that if it is really desirable to do away with "privileges," the only way to do it is to have put and call trades interdicted at the clearing house.—*Chicago Herald.*



HAILS VALLEY UNOCCUPIED.

It is the time of year for hesitation and general apathy in wheat. It is telegraphed every day or two that Minneapolis has sold a quantity of wheat for export. All which may be true, but it is wheat that is to be shipped, in May most likely. Away up in that Northwest railway rates are like white men, "very uncertain." They claim about the same rate to the seaboard as from Toledo, which is in the United States, and if they can rebate the rate sufficiently perhaps wheat can be moved East. At this kind of business Minneapolis has always been very handy. When navigation opens we expect a free movement of wheat all around.—*Toledo Market Report.*

### CANADIAN CANAL TOLLS.

During the past two or three weeks large quantities of American grain could have been booked for transportation via the Canadian route, which business has passed by us, as many shippers of course would not for a moment entertain the idea of forwarding their grain via this port while the uncertainty existed regarding the canal tolls on grain passing through the Welland Canal, and also on grain shipped from Ontario ports. Possibly the authorities at Ottawa are so elated over their successes in the bye elections that they think they can afford to let such an important trade question as that of fixing the canal tolls "go to the devil." Their actions certainly warrant that deduction.—*Trade Bulletin, Montreal.*

### TO REMEDY A RAILROAD EVIL QUICKLY.

The great point to be desired is not a repeal of the [Inter State Commerce] law but to remedy a railroad evil quickly. Ordinary court processes are not quick enough to right the wrong which may be done to a shipper. When this defect in the machinery of the law has been cured other defects may be sought out and endeavored to be remedied. The great desideratum is to give to every shipper who can prove that he has been discriminated against in the matter of rates of transportation, the means of promptly and certainly obtaining damages from the offending corporation. It is not impossible that all the rest would be found able to take care of itself. In any event the remaining elements of mischief would be only of the inferior order.—*Chicago Tribune.*

### BETTER FACILITIES NEEDED AT BALTIMORE.

The chief limit put upon the grain business in Baltimore last year was the failure on the part railway companies to deliver the freight. A much greater volume of business would have been done if the railroads had had more cars and terminal facilities had been worked to their full capacity. The facilities are wanting for the proper handling of produce coming to Baltimore by water from Maryland and Virginia. Hay sheds are wanted and wharves for storing oats and corn, while everybody recalls the troubles caused by the enforced storage of grain in barges during the month of December. These are evils which might be remedied, and must be corrected if Baltimore trade is to continue in the pace which has been set. The railroads must be encouraged to keep up with the natural growth of business.—*Baltimore Herald.*

### THE CANAL BOAT AS A DIVIDEND REDUCER.

We know that it is fashionable in some quarters to look upon the canal boat as an effete instrumentality belonging to a past generation. The freight train on the iron track goes thundering by the slow moving craft with its team of mules, and the brakemen laugh at the spectacle as if the canal had outlived its day of useful service. But every ton thus drawn by the fiery locomotive has to be moved at a rate split in half, and the remainder pared still more, because that tiny thread of water [the Erie Canal] stretches across the country. If the frost would leave it uncoated with ice throughout the year there would be a much smaller dividend on the railroad stock, and those who now ridicule the waterway as an antiquated structure would learn to pay it more respect and would not find a date in January when the boats were tied at the dock, and it seemed therefore quite safe to question their usefulness.—*N. Y. Jour. of Com.*

### HOLDING BACK WHEAT.

They [the farmers] were told when the crop was harvested that if they would hold the bulk of the grain on the farms, in the autumn, what they so held would bring much higher prices. Some did hold and others sold what they had to spare. Those who sold in the face of the advice got no less than 20 per cent. more than the remainder would fetch now. Holders are discouraged by that experience and would gladly sell at prices paid earlier, especially with the addition of the cost of holding. Few now even hope for that result. What they were assured and what they believed, who held onto their grain has not turned out as they expected. They are now selling independent of advice, and in a desultory way as their moods or necessities influence them. There is no present prospect that they will do otherwise. If crops get worse in this country they may hold back, but to tell them that Russia has a wretched outlook, in the Southern governments, would have little effect since the late experience.—*Minneapolis Market Record.*



## WATERWAYS

Preparations have been made to dredge Montreal harbor as soon as the ice goes out, and to improve the dock facilities.

A California state convention will be held at San Francisco April 8 in favor of the construction of the Nicaragua Canal.

The Delaware and Raritan Canal was opened March 7, the first boat being the Octarara, bound from Philadelphia to New York.

A movement is on foot to demand the deepening of the Erie Canal one foot and the raising of its banks another foot. This improvement would add greatly to its usefulness.

The Rivers and Harbors Committee closed its hearings February 10 and went to work on the bill, which it is expected will call for an appropriation of about \$17,000,000 to \$18,000,000.

A. G. Menocal, representing the company which is constructing the Nicaragua Canal, is in London effecting the disposal of \$100,000,000 in bonds and \$90,000,000 in stock of the Maritime Canal Company.

A recommendation will probably be made in the river and harbor bill that the locks and dams of the Monongahela Navigation Company be condemned and purchased by the Government and operated without cost to the boatmen.

Instead of dredging the rivers Congressman Griswold of Erie, proposes that a long dam be constructed in the Niagara River just above the falls, believing that the cost would be insignificant in comparison with the great benefits derived.

The improvement of the Arkansas River in 1891 cost \$94,201; with this outlay the required depth of two and one-half to three feet has been maintained for a distance of 710 miles, and more than \$200,000 of the appropriation remains to be expended.

The various bills which have been introduced into the House providing for a survey for a ship canal between Lake Erie and the Ohio River have been referred to the committee on railways and canals where they have been pigeonholed, never to be heard from again.

The Canadian Marine Association waited on Mr. Tupper March 10 and asked that a toll of 2 cents a ton be imposed on all American goods passing through the Welland and other canals. This shortsighted policy will be at the expense of the grain trade of Montreal.

A bill has been reported and placed on the House calendar for the construction of a boat railway on the Columbia River at the Dalles and Cello Falls and Ten Mile Rapids and for the improvement of the Three Mile Rapids. The sum asked for this purpose is \$2,680,356.

If the railway and canals committee fails to recommend the 21-foot channel for the great lakes it will not be because its value was not impressed upon them, for Congressman Tyler of Cleveland and the Vessel Owners' Association have been working hard with the committee to have that plan authorized.

Dredges have begun work on the Chesapeake and Ohio Canal which is to be opened to-day. During the winter three new locks were built near Williamsport. Last season ninety boats were engaged in the traffic between Cumberland and Georgetown, and this year it is expected that 150 will be placed in commission.

At a meeting March 2 of the joint committee of the City Council and Board of Trade of Winnipeg, Man., a report was presented submitting a memorial to the Dominion Government praying that \$500,000 be expended in the improvement of the Red River so that the stream would be navigable by steamers from Lake Winnipeg to the North Dakota line.

The Senate committee on commerce has decided to recommend the adoption of a most liberal policy for the improvement of the Mississippi River. It is believed that the committee will favor an appropriation of \$15,000,000 for the Mississippi River from the mouth of the Ohio down to the passes, not more than \$2,000,000 to be expended in any one year.

In the March number of *Scribner's Magazine*, Lieut. Charles C. Rogers gives an array of statistics that shows the wonderful growth of lake commerce and the need for "The Water-Route from Chicago to the Ocean." He says that in 1890 the aggregate entrances and clearances of vessels on the great lakes numbered 88,280, while the corresponding aggregate for the entire seaboard of the United States was 37,756.

The day of small canals and canal boats is past. This is shown by the decay into which the old canals in the Eastern states have fallen. Even the great Erie Canal with difficulty competes with the railways. It seems to be impossible for the canal boatmen to secure fair treatment at Buffalo. The commerce of the country must turn elsewhere for relief. Large ship canals and large ships are in line with modern times, and will certainly supersede the old canal boat drawn by horse power. A

ship canal via the St. Lawrence River seems to be the most pressing need of our lake commerce at the present day.

The towboat J. P. Jackson of the Inter-State Transportation Company arrived at New Orleans from Vicksburg, Miss., February 12, with the largest quantity of cotton seed ever towed at one time by one boat. The lead consisted of 101,000 sacks of seed and 500 bales of cotton, making a total of 6,000 tons, which if hauled on a railroad would have loaded 500 cars.

Senator Dolph of Oregon has presented petitions from his state favoring government aid for the Nicaragua Canal. The Senator said he wished to see the United States at the head of the matter, first, because he desired to have the canal speedily constructed; because he desired that when constructed it should be under the control of the United States, and third, because he desired the canal to be capitalized only at its actual cost.

C. A. Gilchrist, a civil engineer of Fort Madison, Ia., says that the route selected for the Hennepin Canal is not practicable because of its numerous locks, and that he has gone over the country, taking levels, and discovered a much better route by which locks will be avoided except at Lake Michigan and near the mouth of Rock River. He says that Captains Marshall and Wheeler, the engineers in charge, are dissatisfied with the approved route.

A new lock is now under construction for the Sault Ste. Marie Canal, 100x800 feet, large enough to float any ship on the high seas. This improvement is to cost \$4,738,865. What our commerce now needs is the improvement of the St. Lawrence River and the Welland Canal, so that when the Sault lock is completed the ships of the world can pass through Lake Superior, thus increasing the usefulness of all improvements which have been made on the great lakes.

A petition has been annually presented by Canadian merchants for the reduction of the canal tolls, and the tolls have been reduced accordingly to what they were the preceding season. This year the same course has been followed. It would be well for the Dominion Government to fix a certain toll for a term of years, so that shipmasters and shippers could transact their business on a sound basis, for uncertainty always acts against the best interests of trade.

The United States could profitably pay the Dominion Government to improve the Welland and St. Lawrence canals if the Canadian Government would in return give the right to use such canals forever. Some such offer should be made by Congress to back up the resolution recently reported by the Committee on Foreign and Interstate Commerce requesting the President to negotiate with Canada to secure the speedy improvement of the Welland and St. Lawrence canals.

The Trans-Mississippi Commercial Congress which convened at New Orleans February 24, after considering various matters, adopted, among others, resolutions, requesting the increase of the facilities for the entry of vessels into the Mississippi River, that the Mississippi, Missouri and Ohio Rivers and their navigable tributaries be improved, that the construction of the Nicaragua Canal is a matter of vital importance to the United States and especially to the people of the trans-Mississippi states.

That the days of sailing vessels are not past is shown by the remarkable voyage made by the new clipper ship Howard D. Troop, which arrived at New York February 26, fourteen days out from Greenock, Scotland. The vessel sailed 2,800 miles in ballast in practically eleven days for contrary winds at the start wasted three days. The Howard D. Troop was built of steel by Robert Duncan & Son, Glasgow, and registers 2,180 gross tons. It is 302 feet long, 42 feet beam and 24 depth of hold with a cargo capacity of 3,500 tons.

The great need of an outlet for the commerce of the great lakes has brought out many plans by which communication may be had with the ocean. One of these plans contemplate the construction around Niagara Falls of a canal through which vessels are to pass via Lake Ontario to Oswego, where all cargoes will be transhipped and sent by canal boats to the Hudson River. This plan would only move the eastern limit of navigation for large vessels from Buffalo to Oswego. The transshipment and transportation by canal boats would continue.

Serious objections have been made to the proposed canal from Lake Ontario at Oswego to the Hudson River in connection with a canal around Niagara Falls or the Welland Canal. The Oswego Canal would be 428 feet above tide water level at its summit and to get down to the level of the Hudson River numerous and expensive locks would be required. Captain W. C. Clark, an old canal boatman, claims that there is not sufficient water to supply the proposed canal at its summit and that its successful operation would be utterly impossible.

The Cleveland Vessel Owners' Association has filed a protest against Senate Bill No. 1,755 as being inimical to the shipping and commercial interests of the great lakes. The bill interferes with the rights of owners by requiring useless and expensive fittings, heavier boilers and making other specifications well calculated to render the shipping business unprofitable. It limits the authority of the ship's officers, and prescribes qualifications that are unnecessary; for instance, a man who has had many years of experience on the lakes must sail the ocean be-

fore he can be an officer on a lake vessel under this law. On the whole it would be detrimental to the best interests of our lake marine which has, untrammelled by burdensome laws, grown and flourished amazingly.

Mr. Cockburn has introduced into the Canadian House of Commons a resolution to the effect that whereas the United States Canal at Sault Ste. Marie is being constructed to a depth of eighteen feet, and it is proposed in that country to deepen the canals in the great lakes to not less than twenty feet; and whereas the proposed increase in depth has already been made at the mouth of the Detroit River, it is expedient in the opinion of this House that Soulages and the other canals on the St. Lawrence River should be deepened to twenty feet.

The Ohio Legislature is about to consider deep water transportation from the Ohio River to the ocean. It is proposed that the state shall enlarge and deepen the Ohio and the Miami and Erie Canals to create a twenty-foot channel that will allow lake vessels to pass through them from Lake Erie to the Ohio River; and then, if possible, secure a like channel in the Ohio River to the Mississippi, so as to make a chain of waterways that will allow of deep-water navigation from the Gulf to the lakes, and on to the ocean by way of the Erie Canal in New York.

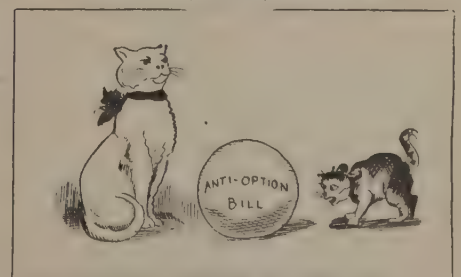
Electricity has been applied to canal boats as a motive power by Otto Busser, a German engineer. A peculiar feature of his invention is that no change need be made in the boats to adapt them to this motor. When a boat enters the canal a portable pulley and electric motor is clamped to its gunwale. The motor gets the necessary current from a trolley running on a wire suspended above the canal. The motor drives the pulley wheels, which in turn pull on a cable laid in the bottom of the canal; and when the boat has passed through the canal the apparatus can be removed.

Senator Frye, who fathered the obnoxious Senate Bill No. 1,755, has introduced another bill "To amend the laws relating to shipping commissioners, seamen and owners of vessels;" and Clark of Alabama has introduced a bill requiring shipping commissioners at lake ports. It is barely possible that the gentleman from Alabama knows the needs of our lake marine better than do the vesselmen themselves, but if any laws were needed the latter would probably be the first to request their passage. The vessel interests have prospered exceedingly under the present policy of non-interference, and do not need any legislation to hinder lake commerce.

Grain freights from the head of Lake Superior will probably rule high the coming season owing to the heavy stock awaiting shipment at the opening of navigation and the large quantities of iron ore to be moved. Each year the iron ore trade is becoming a more important factor in the making of rates from Lake Superior and this year an immense ore dock is being built at Two Harbors, and another, at West Duluth, is soon to be built, having a total annual shipping capacity of 1,400,000 tons. Four cents have been offered on a 60-days' contract for wheat from Duluth to Buffalo and some charters have been made from Chicago to Buffalo for wheat at 3½ cents.

Nature has provided an outlet by way of the St. Lawrence River, which needs but comparatively little improvement to make it navigable for lake vessels. Col. O. M. Poe of the United States engineers corps, says: "This natural outlet Canada has already improved by the construction of the Welland Canal and the series of shorter canals along the St. Lawrence. These canals cover the entire distance where canals are required between Lake Erie and the sea. Their aggregate length is only 70 miles, while the Erie Canal is 363 miles long. The Welland Canal has been deepened to fourteen feet, and in three years the other canals should be deepened if appropriations are kept up."

### THE CAT'S WISDOM.



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WIND, MY SON, WIND!



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Sake drinking is one of the great curses of Japan. In 1879 the amount of rice converted into sake amounted to 15,000,000 bushels.

### WHEAT IN STACK IN MANITOBA.

As to quantity of wheat to be threshed yet, opinions differ widely, says the Winnipeg Commercial, some stating that one-half the crop is in stack yet, but is a maximum estimate. Opinions also differ widely as to the condition of the wheat in stack, and fear is occasionally heard expressed that it will turn out badly in the spring. The general opinion, however, is, that it is by all odds better to allow the stacks to stand than to attempt to thresh them while there is danger of getting ice or snow mixed with the wheat. Damp wheat, such as has occasionally been offered at country points, dealers do not want at any price. Better let the stacks stand until summer, if they cannot be threshed sooner, except at risk of having damp grain. There is not much grain moving Eastward beyond Fort William for storage. A few carlot transactions are made on Eastern milling account, but shippers have the old complaint that there are invariably claims of shortages on transactions with Eastern millers and some of them do not care for Eastern Canada business at all on this account.

### Miscellaneous \* Notices.

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A grain drier. State make and price.

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#### MAN WITH CASH WANTED.

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Price, \$3.50. Sent postpaid on receipt of price. Address LEE KINGSLEY & Co., Syracuse, N. Y.

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One No. 3 Barnard & Leas Warehouse Dustless Wheat Separator, and one No. 5 Excelsior Oat Clipper, Separator and Grader combined, both machines in good condition, about as good as new, for sale cheap. Address

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#### SECOND-HAND MACHINES.

I have for sale in good order: One Clutch; one No. O Band one No. G Nonpareil Feed Mills; one No. 2 Magic Feed Mill; one No. New 4½ Scientific Feed Mill; one No. 2 Morgan Scourer; one extra heavy letter press; one double 6 ft. 6 in. by 30 in. hexagonal scalping reels, etc. Address  
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**R. R. CORDNER,**  
MIDDLETOWN, N. Y.,

**BUYS** Corn, Oats, Feed in Bulk or Sacked, Grass Seeds, Baled Hay, Straw and any salable Produce in CAR LOTS.

Freight Rate from the West is same as to New York. Correspondence from Dealers is respectfully solicited.

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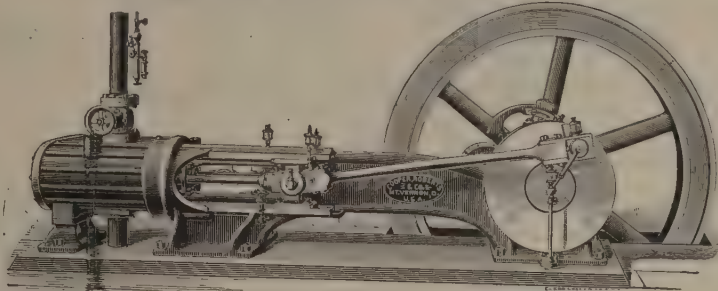
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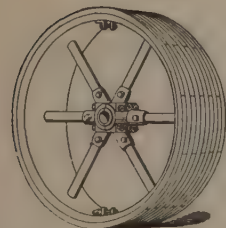
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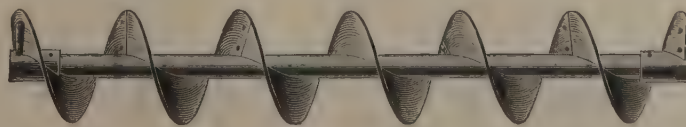


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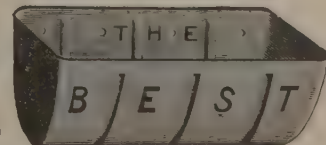
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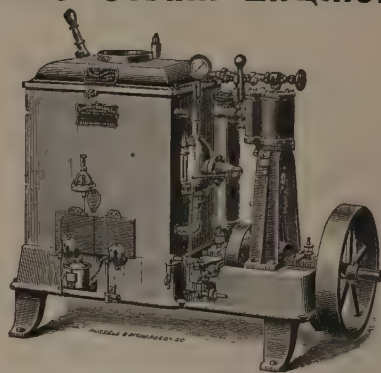
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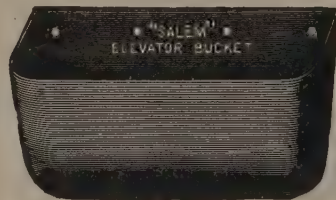


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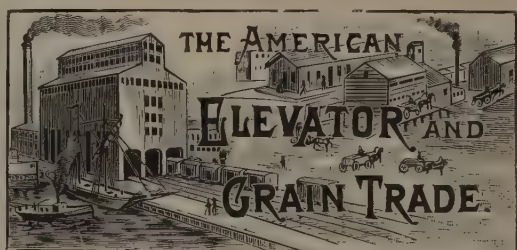
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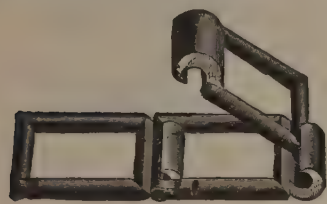
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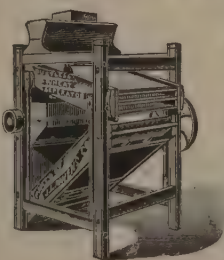
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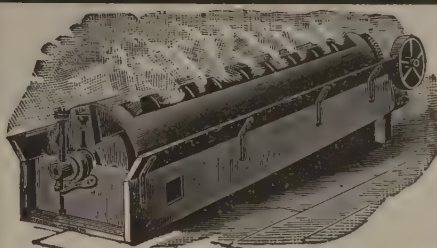
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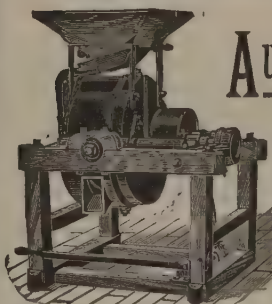


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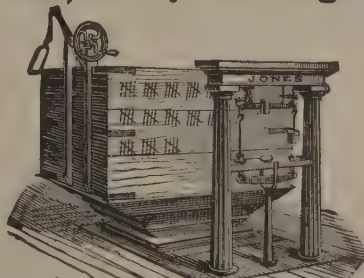
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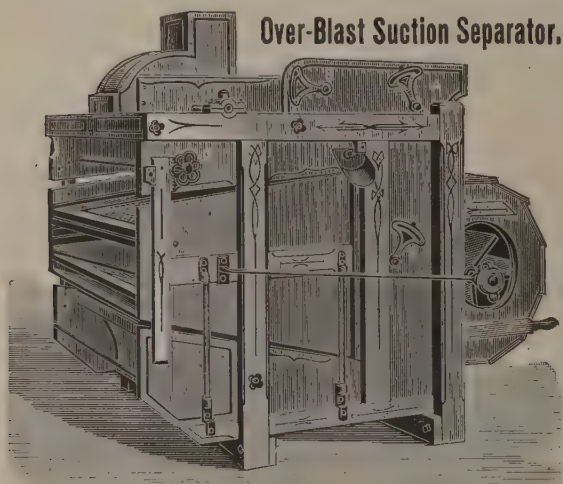


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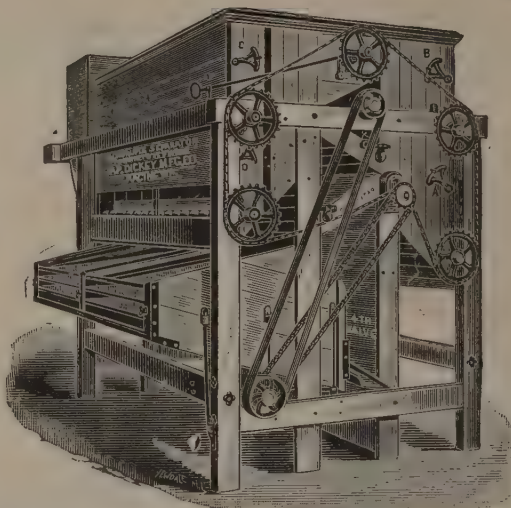
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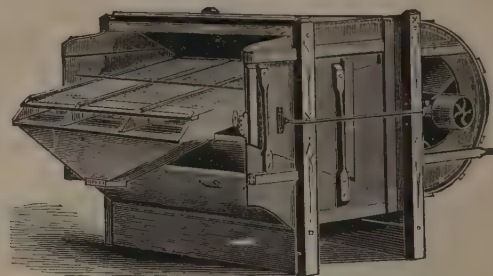
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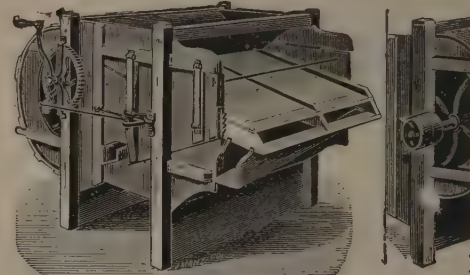
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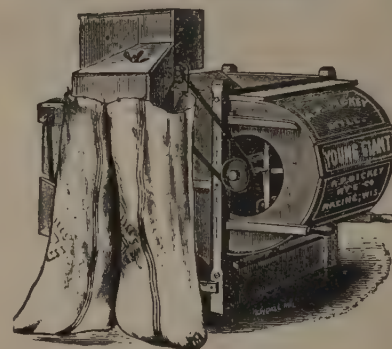
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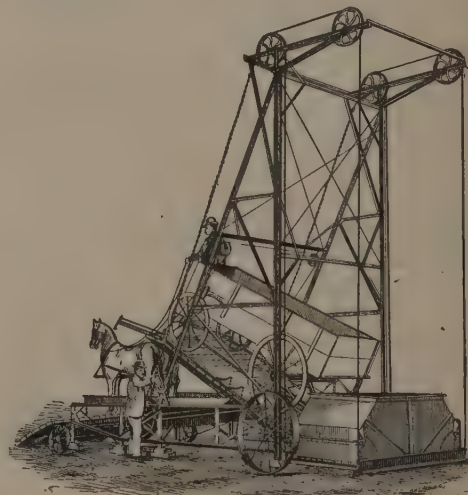
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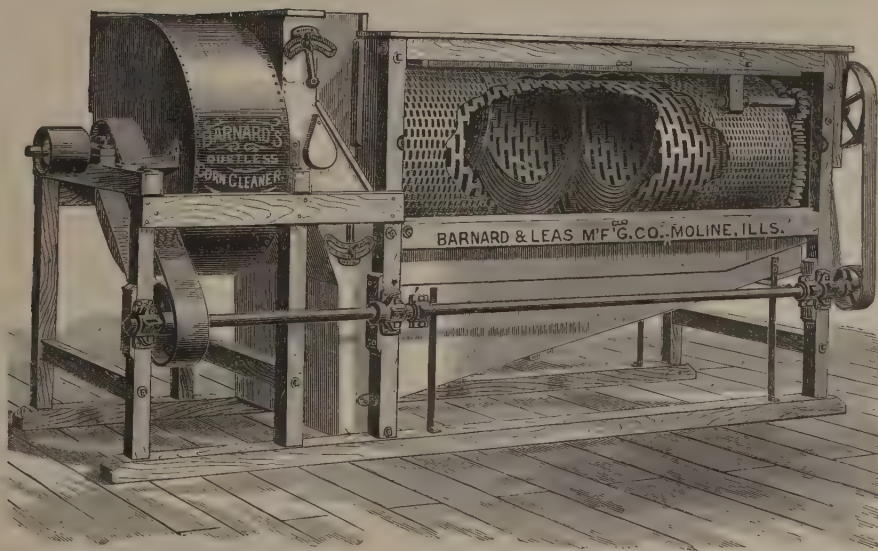
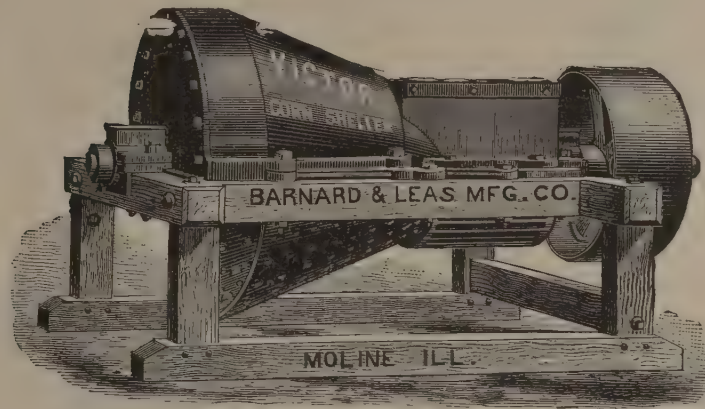
Yours,  
COY, CASS & CO.

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Corn Sheller and Cleaner on earth. Be sure and send your orders to Barnard & Leas Mfg. Co., and get the best.



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**WM. R. DELL & SON,** 26 Mark Lane, London, E. C., England.

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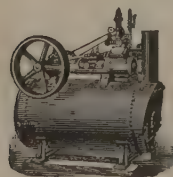
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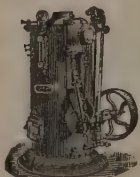


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Upright and Horizontal, Stationary and Semi-Portable.

ALL SIZES UP TO TWENTY-SIX HORSE POWER.  
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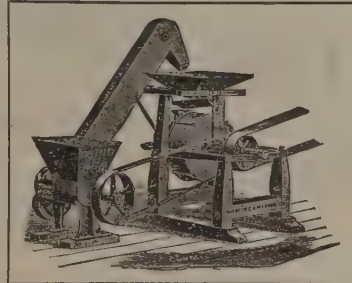
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And Everything needed in the Handling and Grinding of Grain.



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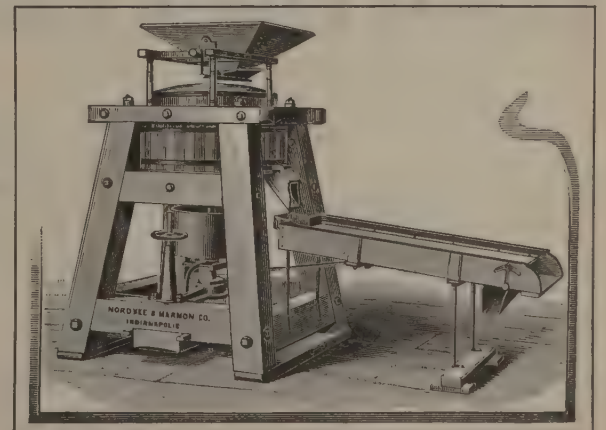
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Send \$20.00 for working plans of a 5,000-bushel Grain Elevator costing \$1,000.00, complete with power and machinery, warranted to handle grain faster and cheaper than any other known device. Also, larger sizes the same ratio in price. Catalogue, with plans and full prices of machinery, sent upon application.

ADDRESS



## NORDYKE & MARMON CO., - Indianapolis, Ind.

BUY the Leaser Patent Self Operating Grain Cleaner



Operated by the weight of the grain. It will clean three times as fast as a fanning mill, and can be adjusted while in motion, to clean as good as desired. It need not be touched except to dump in grain. Five sieves go with each cleaner, to clean any kind of grain. Floor space 30x40 inches, five feet high. This is a farmer's size, but is especially adapted to warehouses. Price, \$30.00. I will make any size required.

Warehousemen will do well to buy one to sell to farmers as I will give exclusive right to only one man at each station to sell. Warehousemen will please paste this up in warehouse where farmers can see it. Send for descriptive circular and references.

JOSEPH LEASER, Patentee and Manufacturer, Dumont, Minn

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Build a Splendid Line of SELF-CONTAINED SIDE-CRANK

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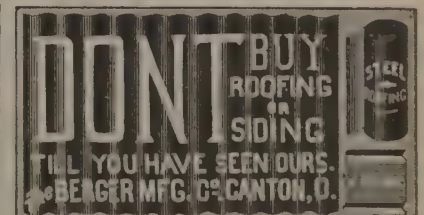
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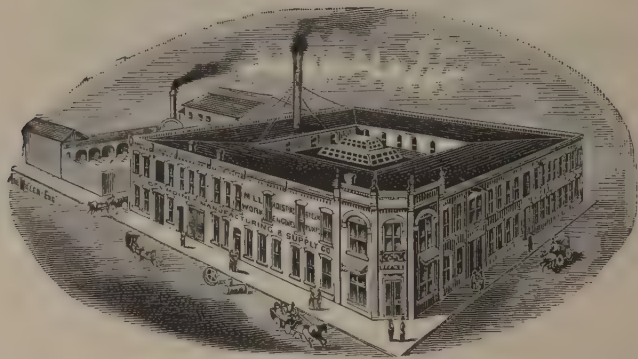
Subscribe for the American Elevator and Grain Trade and the American Miller: both one year \$1.50, Address MITCHELL BROS. CO., Chicago.



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Iron Pipe Fittings and Brass Goods, Pulleys, Shafting, Elevator Buckets and Gears.

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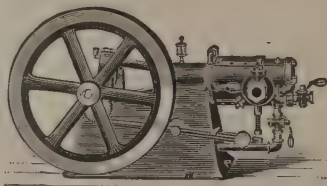
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No Boiler,  
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Started by Spark From Small Battery.

Adapted to run Elevators and Feed Mills, and Guaranteed not to cost for Fuel over 2 cents per hour per Horse Power.

YOU TURN THE SWITCH—ENGINE DOES THE REST.

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ALSO  
PLAIN  
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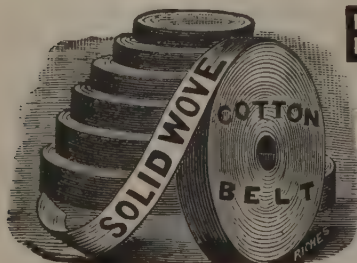
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THE CASE MFG. CO., Columbus, O.

## UNDOUBTEDLY

The Best Grain and Seed Testing  
Scales on Earth.

U. S. STANDARD.



We manufacture more Grain and Seed Testing Scales than any firm in the United States. They are positively accurate, and have been adopted by different Boards of Trade throughout the country.

We manufacture them in four sizes; one-half pint, one pint, one quart, and two quarts.

### DIRECTIONS FOR USING.

For weight of grain per bushel, take from sample to be tested and fill the brass bucket carefully (not pressing down), and with the beam strike off the grain evenly, then weigh same, using the slide weight. On getting an Even Balance you will have the weight in pounds per bushel. Thus, if balanced at sixty, it would indicate sixty pounds to the bushel, etc. Always be careful not to Pack Grain in the Bucket.

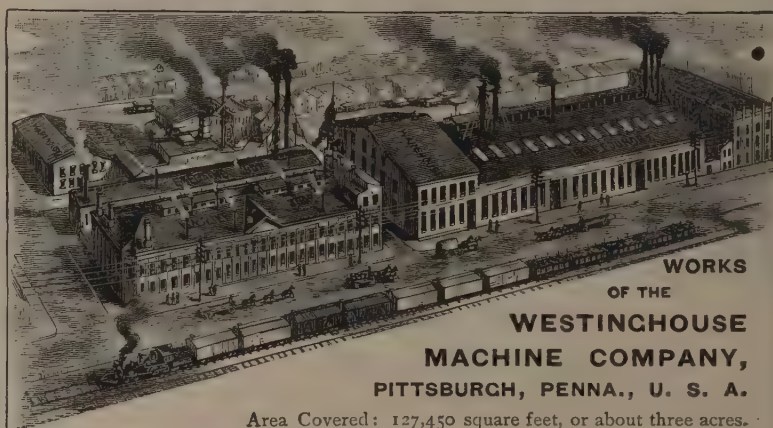
We Make a Specialty of Supplying the Wholesale Trade.

We make the most accurate and best Flax Seed Scale in the market.

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WESTINGHOUSE

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PITTSBURGH, PENNA., U. S. A.

Area Covered: 127,450 square feet, or about three acres.

WESTINGHOUSE STEAM ENGINES alone are produced, to wit:—

Junior Automatics, in 7 sizes, from 5 to 75 H. P.; Westinghouse Standard Automatics, in 13 sizes, from 5 to 250 H. P.; Westinghouse Automatic Compounds, in 11 sizes, from 8 and 13 x 8 Cylinders to 23 and 40 x 20 Cylinders; all of which are manufactured in quantity to hardened steel templates, and carried in stock, ready for shipment.

REPAIRS ARE ALSO MANUFACTURED in quantity to templates, and carried in stock.

THE COMPANY MANUFACTURES, for its own use, all Iron and Brass or Bronze Castings, as well as all its own Iron and Steel Forgings, from the smallest to the largest; thus controlling, in a measure, the quality of the materials entering into the Engines which it produces.

THE PRODUCING CAPACITY OF THE COMPANY'S WORKS is equal to about four (average) Steam Engines per diem, or about 5,000 H. P. per month, or about 60,000 H. P. per annum.

OVER 6,000 OF THESE ENGINES HAVE BEEN SOLD during the past ten years, with constantly increasing orders.

THE WESTINGHOUSE MACHINE COMPANY.  
PITTSBURGH, PENNA. U.S. OF A.

## VANDUZEN GAS AND GASOLINE ENGINE

For Grain Elevators, Flour Mills and for General Uses.  
STATIONARY AND PORTABLE.

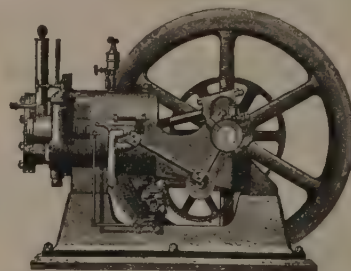
JUST THE THING FOR GRAIN ELEVATORS.

OFFICE OF WELLS BROTHERS,  
DEALERS IN LUMBER, GRAIN, COAL, ETC.

Marathon, Iowa, Sept. 28, 1891.

VANDUZEN GAS & GASOLINE ENGINE CO.,  
Gentlemen:—We have had our engine in use about eight months, and can unhesitatingly say, the longer we use it the better we like it. It is especially adapted to elevator work. By being able to set it to run any number of revolutions per minute, from one hundred to three hundred, it enables us to regulate the speed of our cleaner to suit all kinds and conditions of grain, better than can be done with cone pulleys. We do not have to hire any special help to run it, as we start it in the morning, and it will run itself till noon or night as we desire, using gasoline only in proportion to the work done, which is about one gallon to the indicated horse-power used in ten hours time. We can start it in a few minutes when everything is cold, and "last but not least," we are paying one and three-quarter per cent. insurance, and our competitor is paying three and one-quarter per cent. for the same work, except he uses steam. Very respectfully, WELLS BROS.

Satisfaction guaranteed in every particular. For full particulars and prices address VANDUZEN GAS AND GASOLINE ENGINE CO., 27 Broadway, CINCINNATI, OHIO.



## ROOFING

In STEEL and IRON made only by us.  
CORRUGATED Iron in variety. Beaded and Crimped Sheets. Pat. Sheet Metal LATH.  
Samples and catalogue.

CHICAGO STEEL & IRON ROOFING CO., Chicago, Ill



# THE EXCELSIOR DUSTLESS MACHINERY

WATKINS & CO., COMMISSION GRAIN,  
Chamber of Commerce,

PEORIA, ILL., June 14, 1891.

GENTLEMEN:—We have clipped to this date something like 500 carloads of oats with the No. 6 "Excelsior" Combined Clipper and Polisher we bought of you at an expense of only a very few dollars for repairs to replace clipping wallowers. The machine has always been entirely satisfactory to us. We have never had a car of oats go off grade through any fault of the machine. We are buying a great many oats clipped by the ..... Clipper, and selling to same parties as those from your Clipper, and their oats have frequent claims made back on us.

Yours truly, WATKINS & CO.

BELLEVUE, IOWA, April 17, 1891.

GENTS:—Since purchasing our No. 5 Excelsior Combined Oat Clipper and Polisher of you in March, 1889, we have clipped and cleaned 150,000 bushels of oats, the loss in clipping averaging 6-10 of a pound per bushel, and we have always got the highest price for No. 2 grade oats, while we make no distinction as to quality in our purchasing, but all going to the same bin. This we consider one of the great advantages of a good Oat Clipper. We have always been well pleased with the machine. Repairs just purchased of you, amounting to \$15.00, is all we have had to pay.

Yours truly, REILING & CO.

HOLSTEIN, IOWA, April 10, 1891.

E. H. PEASE MFG. CO., Racine, Wis.

GENTLEMEN:—In regard to the No. 6 Excelsior Oat Clipper and Polisher, and Separator, I purchased of you last fall, I wish to say that it is highly satisfactory and surpasses my best expectations. I have polished about 150,000 bushels of barley with it, and it does this work very evenly, and does not break nor hull the grain. I am now running it on oats that test 28 pounds to the bushel, and raise them up to 33 and 34 pounds, with a shrinkage of not more than 3 ounces to the bushel.

I hesitated some before buying, but now that I know what it will do, I would not be without it for many times its value.

Yours respectfully, F. S. MANSON.

SIGNED,

CHICAGO, ILL., Feb. 24, 1891.

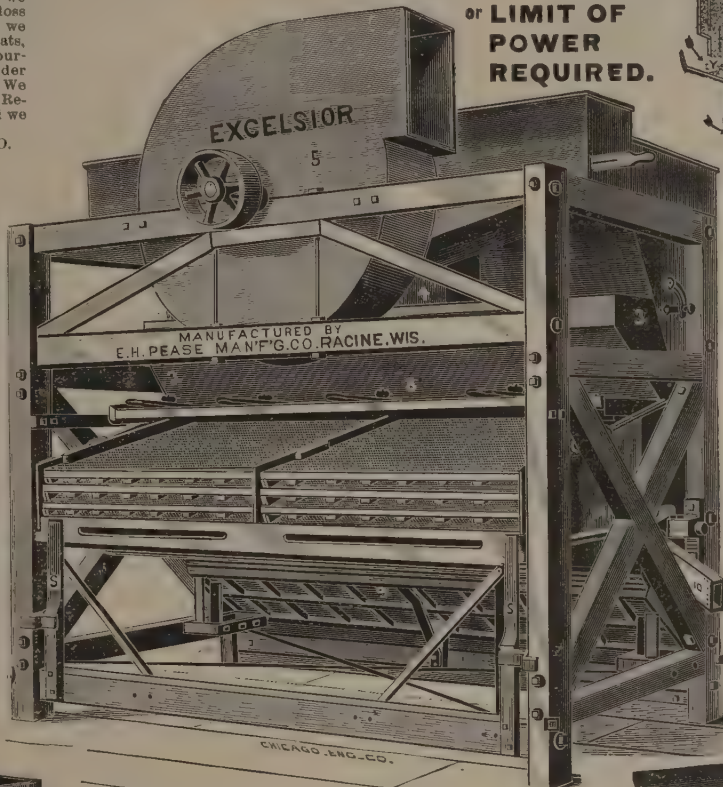
DEAR SIRS:

The two No. 8 Excelsior Jr. Oat Clippers we bought of you in June, 1890, are giving splendid satisfaction. We experience no difficulty in raising the weight of oats from 8 to 10 lbs. to the measured bushel. On the 12th inst. we run through the two machines a large lot of very foul No. 3 white oats, testing 27 pounds to the measured bushel, and raised them to a fine, bright quality of No. 2 oats, testing 37 pounds; shrinkage 500 pounds to 1,000 bushels. The shrinkage being largely "hulls," and being separated from the dust, can be utilized in making ground feed.

On the 18th inst. we run 4,500 bushels of oats through in 8 hours, and raised them from No. 3 white, testing 29 lbs., to No. 2, testing 38 lbs.

Yours truly, COLUMBIA ELEVATOR CO., J. E. CALEY, Sec'y.

HAS NO SUPERIOR IN POINTS OF  
CONSTRUCTION,  
DURABILITY,  
EXCELLENCE OF WORK,  
STILLNESS OF RUNNING,  
OR LIMIT OF  
POWER  
REQUIRED.



"Excelsior" Dustless Separator and Grader.

—FOR—

SEPARATING, CLEANING AND GRADING  
WHEAT FOR MILLING.

OR ANY KIND OF GRAIN FOR  
MERCHANTABLE PURPOSES.

MADE IN 4 SIZES.

CAPACITIES, 150 TO 800 BUSHEL PER HOUR.

CEDAR RAPIDS, IA., Dec. 19, 1890.

GENTS:—The No. 8 EXCELSIOR OAT CLIPPER, SEPARATOR, GRADER AND POLISHER COMBINED, bought of you in January, 1890, is still doing business at the old stand, and giving as good satisfaction as ever. We are now using it to polish barley and it is giving good satisfaction.

Yours truly,

MINER & MORGAN.

"Excelsior" Dustless Elevator Separator.

FOR ALL KINDS OF

GRAIN OR SEEDS.

MADE IN 4 SIZES.

CAPACITIES, FROM 300 TO 2,000 BUSHEL PER HOUR.

HAS LARGE SIEVE SURFACE, POWERFUL  
FAN AND PERFECT VENTILATION.

GRAIN SHOE IS COUNTER-BALANCED BY  
COUNTER-BALANCE SPRINGS.

THE SMOOTHEST

—AND—

LIGHTEST RUNNING SEPARATOR  
IN THE MARKET.

"ELEVATOR B."

LA CROSSE, WIS., Nov. 6, 1890.

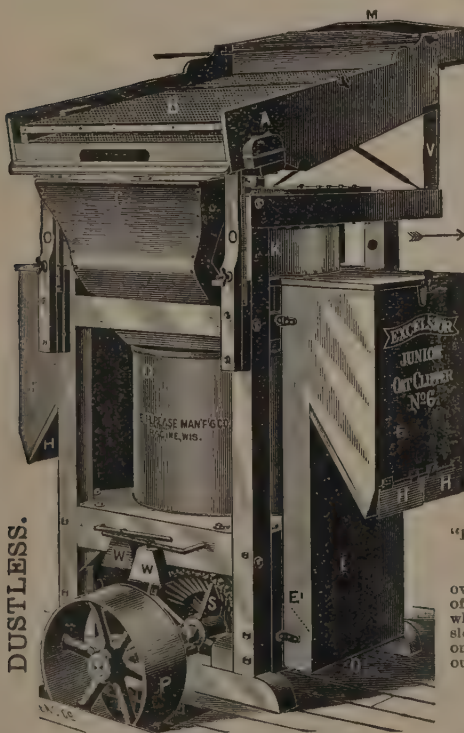
GENTLEMEN:—Have just made a Test Run of Flax over the No. 2 Excelsior Receiver Separator of 775 bushels per hour without crowding. Of course, when flax is very dirty it would require more attention or slower feed. We are very much pleased with the machine on flax and timothy. It adds one-half to the capacity of our flax reels and of our timothy mills.

Yours respectfully,

W. B. CLISBY,

Foreman for W. W. CARGILL & BRO.

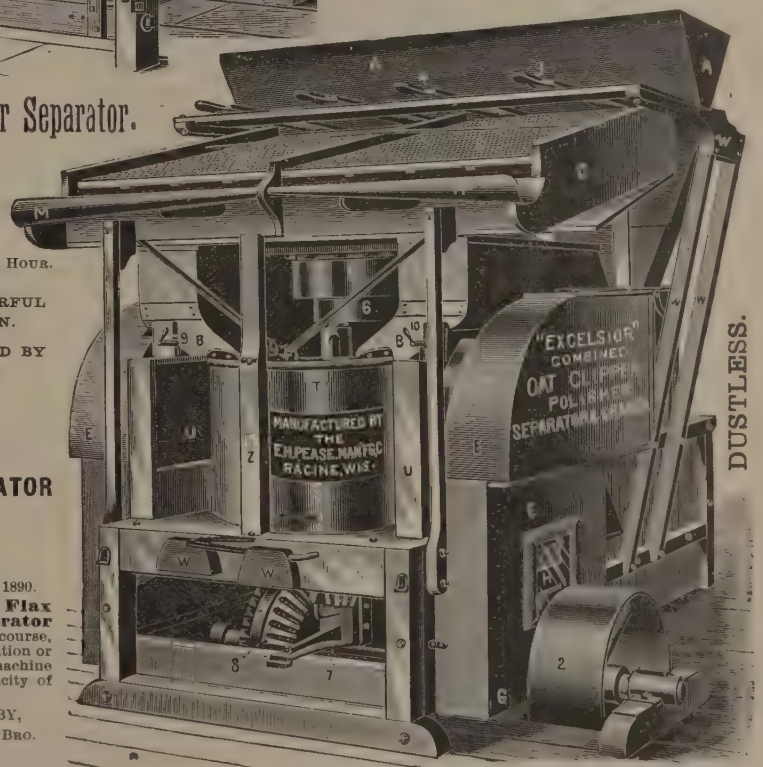
SEND FOR  
CATALOGUE  
AND  
PRICES  
—TO—



"EXCELSIOR, JR." OAT CLIPPER, POLISHER AND SEPARATOR  
FOR CLIPPING, POLISHING, SEPARATING AND  
CLEANING OATS,

OR MAY BE FURNISHED WITH SIEVING, ETC.,  
FOR POLISHING, CLEANING, SEPARATING AND  
GRADING WHEAT OR BARLEY.

MADE IN 2 SIZES. CAPACITIES, 250 TO 600 BUSHEL PER HOUR.



"EXCELSIOR" OAT CLIPPER, SEPARATOR AND GRADER COMBINED;

ALSO POLISHER, SEPARATOR AND GRADER COMBINED.

THIS "COMBINED" MACHINE May be fitted to all any or all the capacities of a GENERAL DUSTLESS ELEVATOR RECEIVING SEPARATOR for all kinds of Grain;

OR AS A CLIPPER, CLEANER, POLISHER, SEPARATOR AND GRADER OF OATS.

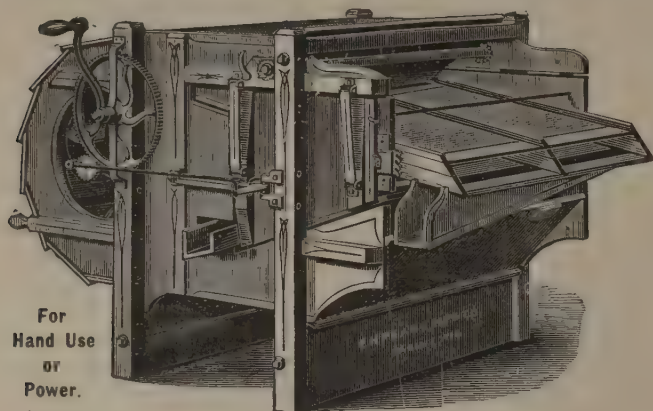
OR AS A POLISHER, SEPARATOR, CLEANER AND GRADER of Wheat and Barley.  
MADE IN 3 SIZES, WITH CAPACITIES FROM 150 TO 750 BUSHEL PER HOUR.

## E. H. PEASE MFG. CO., RACINE, WIS., U. S. A.

SEE PAGES 318, 319, 320, 321.



# PEASE WAREHOUSE FANNING MILLS.



For  
Hand Use  
or  
Power.

## The "Pease" Side Snake Mills.

The Cut shows the "Right," or Crank side. On the opposite side are tight and loose Pulleys. These mills are not only a first class mill for general work but are also specially adapted for all kinds of seed cleaning as is attested by the following unsolicited letter, which we publish by permission:

ST. CHARLES, MINN., April 12, 1890.

E. H. PEASE MFG. CO., Racine, Wis.:

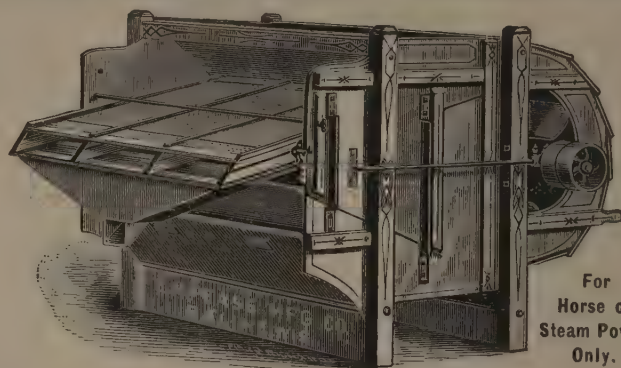
Gentlemen:—We have started the No. 2 Mill which we bought from you a short time ago. We find it to be the best Timothy Cleaner we ever saw. It cleans very fast and does fine work. It is far ahead of the — mill for cleaning timothy. We also use a — mill, but it does not come up to the No. 2 side shake we bought of you. Your No. 2 will clean timothy about three times as fast as the — mill does, and does better work than the — does. Your mill is well built and strong. We would not give our No. 2 "Pease" Side Shake for any two — that we ever saw. Very truly,

J. B. ZECHES & CO.

NOTE—The No. 0 machine is not fitted to run by hand power.

	No. 3.	No. 2.	No. 1.	No. 0.
Extreme Height.....	3 ft. 6 in.	3 ft. 6 in.	3 ft. 6 in.	3 ft. 6 in.
Size over all.....	5 ft 2 in. x 3 ft 4 in.	5 ft. 2 in. x 4 ft.	5 ft 2 in x 4 ft 9 in	5 ft 2 in x 5 ft 9 in
Floor to center of pulley.....	25½ in.	25½ in.	25½ in.	25½ in.
Driving pulley.....	6 in. x 2 in.	6 in. x 2 in.	6 in. x 2 in.	6 in. x 3 in.
Revolutions per minute.....	275	275	275	275
Size of hurdles.....	2 ft. 6 in. x 24 in.	3 ft. 2 in. x 24 in.	4 ft. x 24 in.	5 ft. x 24 in.
Capacity per hour.....	100 to 200 bu.	125 to 250 bu.	175 to 350 bu.	250 to 450 bu.

HAVE  
THE  
LARGEST  
SALES  
OF  
ANY  
MADE  
IN  
THE  
UNITED  
STATES



For  
Horse or  
Steam Power  
Only.

## The "Pease" End Shake Mills.

Particularly adapted for use in Horse Power Elevators where power is limited and close cleaning and grading desired. It is strong, durable and noiseless.

The shoe is supported by STEEL springs, hung from above and vibrated by flexible shake-rods with ADJUSTABLE ECCENTRICS. The shake is from front to back, instead of from side to side.

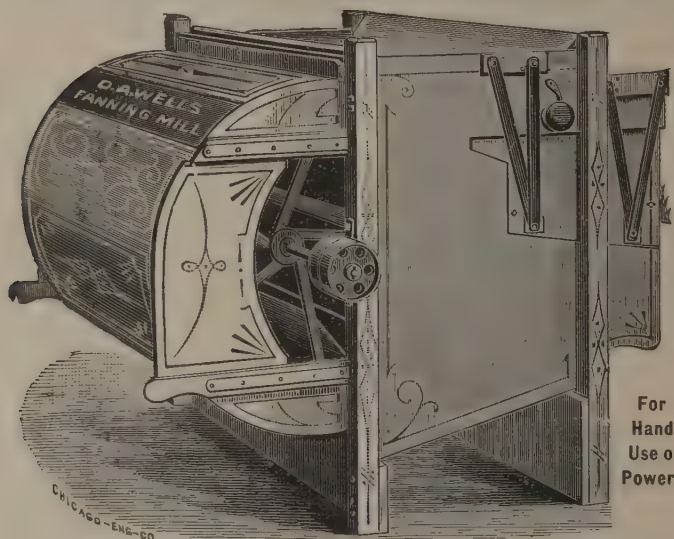
They are fitted with a patent adjustable hopper raiser, not shown in cut, which gives an even flow of grain upon the sieves.

These Mills have MUCH GREATER CAPACITY than any other kind of equal sizes. They are especially adapted for cleaning ALL KINDS OF GRAIN. The side shake Mills are better adapted for cleaning Clover, Timothy, Flax, etc.

NOTE—The pulleys are placed on the RIGHT side of mills or opposite to those showing in this cut, unless otherwise ordered.

	No. 3.	No. 2.	No. 1.	No. 0.	No. 00
Extreme Height.....	3 ft. 6 in.	3 ft. 6 in.	3 ft. 6 in.	3 ft. 6 in.	3 ft. 6 in.
Size over all.....	5 ft 9 in. x 5 ft 9 in.	5 ft 9 in. x 5 ft 9 in.	5 ft 9 in. x 5 ft 9 in.	5 ft 9 in. x 5 ft 9 in.	5 ft 9 in. x 5 ft 9 in.
Floor to center of pulley.....	3 ft. 3 in.	3 ft. 11 in.	3 ft. 11 in.	3 ft. 11 in.	3 ft. 11 in.
Driving pulleys.....	25½ in.	25½ in.	25½ in.	25½ in.	25½ in.
Revolutions per minute.....	450	450	450	450	450
Size of hurdle.....	2 ft. 6 in. x 30 in.	3 ft. 2 in. x 30 in.	4 ft. x 30 in.	5 ft. x 30 in.	6 ft. x 30 in.
Capacity per hour.....	125 to 250 bu	150 to 300 bu	200 to 400 bu	250 to 500 bu	300 to 600 bu

THESE MACHINES CAN BE FURNISHED WITH SPECIAL SIEVING TO HANDLE ANY KIND OF GRAIN OR SEEDS.



For  
Hand  
Use or  
Power.

## The "D. A. Wells" Warehouse Fanning Mill.

### WARRANTED

To clean CORN or OATS at the rate of 800 to 1,000 bushels per hour with the equal of ONE MAN POWER. Sold SUBJECT TO TRIAL. SATISFACTION GUARANTEED!

Designed for locations where power is limited and rapid cleaning is more of an object than close grading.

They have a much larger capacity than our "Pease" Warehouse Mills, but having a larger fan, do not require as high a motion and consequently require less power.

These mills are famous as corn and oat cleaners, where plain elevator work is required, and to be done rapidly.

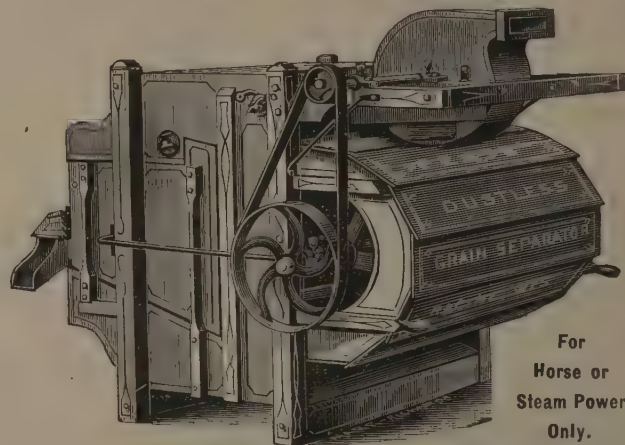
The sieves are so arranged that they may be put in place or taken out independently, thus enabling the operator to quickly arrange any combination that may be required for the various kinds or conditions of grain to be cleaned.

Extreme height.	Size over all.	Floor to center of pulley.	Driving pulleys.	Rev. per minute.	Size of sieves.	Capacity per hour on corn or oats.	Weight.
4 ft. 1 in.	5 ft 6 in x 2 ft. 3 in.	2 ft. 3 in.	6 in x 2 in	140	57 in. x 26 in.	800 to 1,000 bu.	425 lbs.

WE  
ARE  
HEADQUARTERS  
FOR  
ALL KINDS  
OF  
MOTIVE POWER  
MACHINERY,  
FITTINGS,  
SUPPLIES AND  
REPAIRS  
FOR  
GRAIN  
ELEVATORS,  
AND  
MILLS.

—O—  
SEND FOR  
GENERAL  
CATALOGUE  
AND PRICES  
—TO—

## The "Pease" Dustless Separators.



For  
Horse or  
Steam Power  
Only.

CHICAGO, ILL., April 8, 1891.

GENTLEMEN:—The "Pease" Dustless Separator I bought of you March 26, 1891, I sold to Witherman & Co., 66 and 68 N. Halsted St. The No. 00 Machine I bought of you January 19, 1891, I sold to F. Grinnell, 80 W. Erie St., and one I bought of you some time ago I sold to Keifer Bros., North Ave. and Halsted St. These and several others of these "Pease" Dustless Separators I have bought of you are being used chiefly for cleaning corn and oats, and any of them will clean as fast as 8x5-inch buckets, placed 12 inches apart and running at the usual speed, can elevate.

All the machines are giving good satisfaction.

Yours, etc.,

R. D. HILDRETH, Millwright,  
53 and 55 So. Jefferson St.

SPIRIT LAKE, IOWA, May, 7, 1891.

GENTLEMEN:—Inclosed find draft to pay for the No. 00 "Pease" Dustless Separator just received from you to take the place of the — Separator. Day before yesterday we put the mill in place, and have been running it on some odd jobs, and the Separator works to our entire satisfaction. The Dustless Fan and Conductor works splendidly, carrying out everything I want it to, and I can put the suction on strong enough to take out grain if I desired. I can regulate the machine just as I want to, and am just more than pleased with it. Yours truly,

D. L. RILEY.

	No. 3.	No. 2.	No. 1.	No. 0.	No. 00.
Extreme Height.....	5 ft. 2 in.	5 ft. 2 in.	5 ft. 2 in.	5 ft. 3 in.	5 ft. 7 in.
Size over all.....	5 ft 9 in. x 3 ft 10 in.	5 ft 9 in. x 4 ft 6 in.	5 ft 9 in. x 5 ft 3 in.	5 ft 9 in. x 6 ft 3 in.	5 ft. 9 in. x 9 ft 8 in.
Height to where grain enters.....	4 ft. 3 in.	4 ft. 3 in.	4 ft. 3 in.	4 ft. 3 in.	4 ft. 3 in.
Floor to center of pulley.....	2 ft. 3 in.	2 ft. 3 in.	2 ft. 3 in.	2 ft. 3 in.	2 ft. 3 in.
Driving pulleys.....	6 in. x 3 in.	6 in. x 3 in.	6 in. x 3 in.	6 in. x 4 in.	6 in. x 4 in.
Revolutions per minute.....	450	450	450	450	450
Size of hurdles.....	2 ft. 6 in. x 30 in.	3 ft. 2 in. x 30 in.	4 ft. x 30 in.	5 ft. x 30 in.	6 ft. x 30 in.
Capacity per hour.....	125 to 250 bu	150 to 300 bu	200 to 400 bu	250 to 400 bu	300 to 600 bu

# E. H. PEASE MFG. CO., RACINE, WIS., U. S. A.

SEE PAGES 317, 319, 320, 321.



# THE MOST SUCCESSFUL FLAX CLEANERS IN THE WORLD!

## FLAX, TIMOTHY AND CLOVER CLEANING.

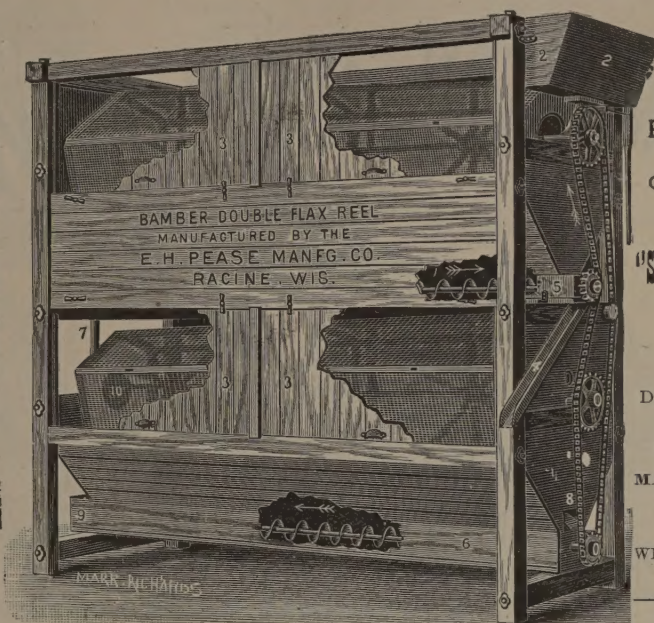
Dear Sirs:—We are using one of your No. 2 EXCELSIOR Dustless Elevator Separators (see page 317 of this paper) as a "scalper" for Flax, and easily run 750 bushels per hour through it. Much of the flax is thus reduced below six per cent. and run directly to our shipping bins. We also have one of your QUADRUPLE Flax Reeling Machines with which we clean rough flax down to two and one-half per cent. at the rate of 300 bushels per hour. We always overcrowd the reels so as to increase their capacity and thus run some flax into the "tailings" which we reclean at our leisure. Of course we should not waste any flax into the tailings and would reduce the flax to better per cent. if we did not crowd the "Feed" on our reels so hard. We consider the outfit hard to beat. We also use the Separator to scalp timothy and clover, thereby DOUBLING the capacity of our seed cleaners.

Yours truly,

W. B. CLISBY, Foreman,  
W. W. CARGILL & BROS.,  
Elevator "B"

LA CROSSE, WIS.,  
Aug. 31, 1891.

STRAIGHT OR TAPERED  
HAND REELS OF ANY DIMENSIONS  
DESIRED, MADE TO ORDER.



Two feet of capacity length for each lineal foot of machine.

### Tapered, Hexagon Reels. Revolving on Horizontal Shafts.

All Sprocket Wheels and Drive Chain run perpendicular and parallel with each other.

The lightest running, best made, most durable reels in the market.

Can "Clothe" them with

{ "BLACK" OR "TINNED" WIRE-CLOTH,  
PERFORATED ZINC, OR  
PERFORATED SHEET STEEL.

MADE  
WITH  
ONE,  
TWO or  
FOUR

REELS  
IN A  
CHEST  
AND

with or without  
"SCALPING-SHOE"

REELS  
OF ANY  
DESIRED-STYLE  
OR  
DIMENSIONS  
MADE TO ORDER.

WRITE FOR  
PARTICULARS.

## HOW IS THIS?

### A FIVE YEARS' RECORD!

MINNEAPOLIS, MINN., Nov. 28, '91.

GENTLEMEN:—The QUADRUPLE FLAX REELING MACHINE you shipped us here for ELEVATOR "K" belonging to E. P. Bacon of Milwaukee has been running in good shape a month, and is giving perfect satisfaction.

We also have one of your machines of same style and size that has been running in this cleaning house about five years, which we like equally as well.

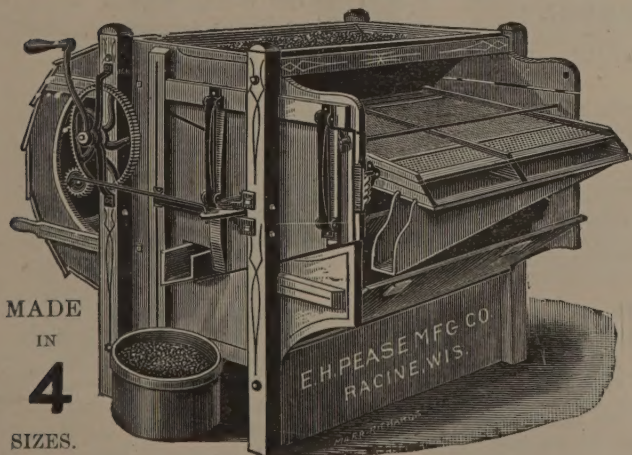
With either machine, WE CLEAN ROUGH FLAX DOWN TO ONE PER CENT. at the rate of 175 BUSHELS PER HOUR.

Have never seen another as perfect machine for RAPID AND PERFECT FLAX CLEANING. It is a pleasure to recommend your machines, as they are perfect and require little power or attention.

Yours truly,

E. G. TERWILLIGER,  
Supt. Elevator "K."

## OUR "PEASE" SPECIAL FLAX MILLS —ARE— FAMOUS FLAX CLEANERS FOR SEED FLAX, OR COMMERCIAL CLEANING. FOR COUNTRY GRAIN HOUSES.



FOR HAND USE OR POWER.

This mill is represented with a Grain Hurdle in the Shoe, to show that although especially adapted to Flax Seed Cleaning, it can also be used for all kinds of Grain, making it a universal mill, calculated for all kinds of work. This mill is built upon the same principle as our Side Shake Warehouse Mills, but with more depth of the shoe, in order to accommodate deeper sieves, and a flax screen extending to the extreme front of the mill, a length of four feet. It consequently has greater capacity than any ordinary mill in existence. No flax hurdles are used, as separate sieves work better on flax seed, and afford opportunities for changing the combinations for different classes of work. This mill is equally well adapted to cleaning, separating and screening Timothy, Clover, and other fine seeds.

## LOOK HERE!

THIS IS ONLY A PARTIAL LIST OF

## LARGE FLAX HANDLERS

WHO HAVE ADOPTED AND ARE EACH

USING FROM ONE TO SIX OF OUR FLAX REELING MACHINES,

—VIZ:—

ALBERT DICKINSON SEED CO.,  
MINNESOTA ELE. CO., (Armour & Co.,)  
CHAS. COUNSELMAN & CO.,  
W. L. LUCE (South Elmhurst Elevator),

CHICAGO.

E. P. BACON & CO., MILWAUKEE.

MINNEAPOLIS:

INTER-STATE GRAIN CO.  
E. P. BACON, ELEVATOR "K"  
STRONG & MILLER.  
EMPIRE ELEVATOR CO.  
BAGLEY ELEVATOR "X".

WINONA MILL CO., Mankato, Minn.  
NESS & MOEN, Peterson, Minn.  
INTER-STATE GRAIN CO., Oelwein, Iowa.  
SAMUELSON & CO., Stromsburg, Neb.  
J. O. SANBORN & SON, Ortonville, Minn.  
W. H. STIPP, State Center, Iowa.  
GRAY, BABCOCK & SEARS, Ida Grove, Iowa.  
S. J. CLAUSEN, Clear Lake, Iowa.  
THOS. KOLTIS & CO., Radcliffe, Iowa.  
D. C. FAIRBANKS, Dodge Center, Minn.  
BARLOW & LAWRENCE, Thornton, Iowa.  
J. E. KNUDSON, Mason City, Iowa.  
MITCHELL BROS., Manley, Iowa,  
AND MANY OTHERS.

# E. H. PEASE MFG. CO., RACINE, WIS., U. S. A.

SEE PAGES 317, 318, 320, 321.



# THE MOST SUCCESSFUL

## MOTIVE POWER EVER INVENTED

### FOR

# COUNTRY GRAIN ELEVATORS

HERE YOU HAVE IT  
IN A "NUTSHELL".

E. H. Pease Mfg. Co.

DEAR SIR:—We have given The Seven Complete Outfits (7 Morton Powers and 7 outfits of Elevating Machinery), bought of you this season, a six weeks' trial and find them all perfectly satisfactory. I consider the Morton Tread Power superior to any other in use. We have taken in at a single house as high as 3,750 bushels per day and used two 900 lb. horses to do the work, and at the same time loaded out 6 large car loads.

Yours truly,

WINONA MILL CO.,  
Per W. F. PARKER,  
Auditor and Builder.

WINONA, MINN., Oct. 24, 1891.

Above Company now (4-8-92) have 9 of these Powers.

WE ARE...

SOLE  
GENERAL AGENTS

FOR

THESE POWERS

AND

HAVE PLACED STOCKS

FOR

Prompt Shipment

AT

RACINE, WIS.,  
MINNEAPOLIS,  
COUNCIL BLUFFS,  
KANSAS CITY,  
MUSKEGON, MICH.

ADDRESS

ALL LETTERS AND ORDERS

TO

E. H. PEASE MFG. CO., Racine, Wis., UNITED STATES.

THE MORTON TREAD POWER



DESIGNED EXPRESSLY FOR GRAIN ELEVATORS.

Style No. 3. For 1, 2 and 3 Horses.

Speed of Main Shaft, 90 to 100 per Minute.

For houses where not more than one, two or three horse power is required, these powers are beyond controversy more economical and satisfactory motors for grain elevators than any steam or gas engine or other horse powers in the world.

THEY ARE THE MOST SUCCESSFUL  
BECAUSE

THEY ARE WARRANTED to give as steady motion to the grain elevating machinery, or to grain cleaning machinery as any steam or gas engine of same rated horse power.

They are always ready for business at a moment's notice. There is no fire to build; no steam to get up; no engineer or driver required; no dangers from combustible fuels of any kind; no increased insurance rates; no fire risks.

Our Patent Automatic Governor is furnished with every Morton Power sold without extra charge, and can be regulated to run the power slower or faster in a moment's time. Should a belt "fly off" when power is operating at full speed and work, there will be no change of speed and no damage to power or horses.

IT IS THE ONLY POWER

having an adjustable "elevation" (on which the horses walk), which is an important point of superiority, viz: By the mere turning of a crank, the operator can, at will, give more or less "pitch" to the elevation, thereby developing more or less power as work in hand requires, or lower same to a horizontal position to rest or feed the horses. This can be done when the horses are either on or off the power, without in any way effecting the "line" or the tension of the drive belt. It is the only Tread Power whose revolving platform (on which the horses walk) has a genuine cog-gear driving connection, with gears on either end of drive shaft, the "cogs" of which each consist of an anti-friction (and anti-wear) roller. It is the only Power having self-oiling traverse wheels and has 50 per cent. less traverse wheels and other wearing points, than any other tread power, and consequently is the most free, light running and steady Horse-Power in the market.

This machine needs no attention (except occasional oiling), and can be stopped or started by a rope, having one end connected with brake-lever, and other end at most convenient place in office or grain elevator. The entire expense of this power when delivered, set up, connected and covered with suitable building, will not cost the purchaser any more than the cheapest "Sweep" Power and is vastly superior. SEE? It does not require one-quarter as large house as a "Sweep" Power.

HERE YOU ARE AGAIN!

E. H. Pease Mfg. Co.

DEAR SIR:—I am using a Morton Tread Power, Style No. 3, Two-Horse, bought of you a year ago, and am running my stand of elevators which is 34 ft. high, with 5x8 in. buckets, placed 12 in. apart on link-belt, with a 1,050 lb. horse and it has given me better satisfaction than I expected when I bought it. I can do more work than any claim the manufacturers have ever made for it. I can elevate 740 bushels of oats, or 500 bushels corn per hour, with one horse.

Yours truly,

J. W. STROMBERG.

ROSCOE, IA., Oct. 26, 1891.

HERE IS A PARTIAL  
LIST OF  
Recent Purchasers  
FOR REFERENCE.

Winona Mill Co., Winona, Minn., (9 machines).  
M. D. Stevers & Co., Chicago.  
C. W. McNoun, Burrton, Kan.  
Barnard & Leas Mfg. Co., Moline, Ill.  
Frost Mfg. Co., (many Powers), Galesburg, Ill.  
Russell & Miller, Winneconne, Wis.  
O. L. Marfield & Co., (many Powers), Winona, Minn.  
Porter Milling Co., Winona, Minn.  
Bingham Bros., (many Powers), New Ulm, Minn.  
A. McMichael, Bryant, So. Dak.  
A. F. Bornsche'n, Brandon, Wis.  
P. H. White, Credit River, Minn.  
B. F. Uplinger, Kingston, Ill.  
York Foundry and Eng. Co., York, Neb., (many Powers).  
J. A. Campbell & Son, Lincoln, Neb.  
Geo. Zion, Yarmouth, Ia.  
E. Burt, Shannon, Ill.  
A. Thorp, Flagg, Ill.  
Turner & Brenner, Marshall, Minn.  
Fawcett Bros., Tacoma, Wash.  
Peterson & Smith, Olds, Ia.  
J. A. Carton & Co., Ackley, Ia.  
McLaughlin & Son, Austin, Minn.  
L. H. Neff, Groton, So. Dak.  
Bender Bros. & Co., Spencer, Ia.  
Logan & Sleeper, Sheldon, Ia.  
S. Walters, Bruce, So. Dak.

AND  
HUNDREDS  
MORE.

SOLE AGENTS  
FOR THE



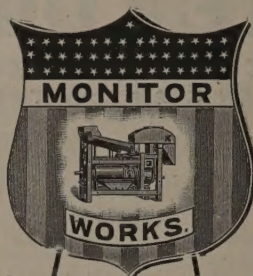




WESTERN BRANCH:

63-65 S. Canal Street, CHICAGO.

B. F. RYER, MANAGER.



J. J. WALTERHOUSE,

WINNIPEG, MANITOBA,

GENERAL AGENT.

THE  
**MONITOR**  
 SEPARATORS  
 HAVE FIRM  
**FOUNDATION.**

DETROIT, MICH., Feb. 15, 1892.  
 I have had the No. 8 Monitor Warehouse Separator in use for the last 9 months, and it has given perfect satisfaction in every respect. I have been using grain cleaning machinery for the past 15 years, and this is the first machine that I have been able to find that would do as much work as was claimed for it. The Monitor does all that is claimed for it to do, and does it well. My man says he can regulate the cleaner just as is desirable to suit the different kinds of grain to clean. I have not had a single complaint about cleaning wheat that has been run through your Monitor.

DETROIT RAILROAD ELEVATOR CO.,  
 S. S. BEALS, Superintendent.

ALBION, MICH., Feb. 15, 1892.  
 The Separators you put in use for us are working to our entire satisfaction. We were so well pleased with the first, that we ordered the second, and have no reason to change our favorable opinions of same.  
 ALBION MILLING CO.

BROOKLYN, N. Y., Feb. 15, 1892.  
 The Monitor Separators are the best I have any knowledge of, and are doing much better work than any we have ever used. I believe them to be the best made.  
 JEWELL MILLING CO.  
 Per H. S. JEWELL.

COLUMBIA, MO., Feb. 20, 1892.  
 In regard to the Warehouse Separator bought of you, we are fully convinced of its capacity to do the work you claimed for it, and furthermore it has given entire satisfaction, and we cheerfully recommend the machine to any one desiring a first rate Warehouse Wheat Separator.  
 FARMERS MILLING CO.

MOSCA, COLO., Feb. 16, 1892.  
 For convenience and first-class work your Separator in my estimation, is the best now on the market, and I would use no other were yours always to be had. I can especially recommend the Monitor Separator to all millers.  
 THE MOSCA MILLING CO.

HAYS CITY, KAN., Feb. 16, 1892.  
 When we bought your Monitor Grain Separator we agreed to make a fair comparison of merit with other cleaners in our mills, and report the result. Therefore we beg to state that we are convinced your machine is the best, and the best is good enough for us. We have had six months' trial and know. I. M. YOST MILLING CO.

WINONA, MINN., Feb. 15, 1892.  
 We take pleasure in stating that we find your Monitor Grain Separators to be the best grain cleaners we have ever used, or know of. The two you placed in our elevator have been running steadily all season on barley and oats, and have given perfect satisfaction.  
 LAMBERTON ELEVATOR CO.

LOCKPORT, N. Y., March 1, 1892.  
 After using other makes of separators and finally settling on yours for my mill, I am pleased to say that I consider it a first class machine in every respect, that it is less trouble to take care of than any other separator I have used, and I believe it a saving over most other makes of separators.  
 GEO. T. CHESTER.

**HUNTLEY, CRANSON & HAMMOND, SILVER CREEK, N. Y.**